District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

PO #: 3RHP3-191118-C-1410

Incident ID	
District RP	
Facility ID	General Kehoe Tank Battery
Application ID	

Release Notification

Responsible Party

Responsible Party: Matador Production Company	OGRID: 228937
Contact Name: John Hurt	Contact Telephone: 972-371-5200
Contact email: JHurt@matadorresources.com	Incident # *(assigned by OCD)*
Contact mailing address: 5400 LBJ Freeway, Suite 1500 Dallas, TX 75240	

Location of Release Source

Latitude 32.2534057 Longitude -104.0535332
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: General Kehoe Tank Battery	Site Type: Tank Battery
Date Release Discovered: 11/12/2019	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
2	2	24S	28E	Eddy

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☒ Crude Oil	Volume Released (bbls) Approx. 45 bbls	Volume Recovered (bbls) Approx. 35 bbls
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐	Volume/Weight Released (provide units) 315 bbls	Volume/Weight Recovered (provide units)

Cause of Release:

Failure on seal of Heater Treater

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

PO #: 3RHP3-191118-C-1410

Incident ID	
District RP	
Facility ID	General Kehoe Tank Battery
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? >25 bbls

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Yes, by SMA (Melodie Sanjari) to NMOCD District 2 & BLM on 11/12/2019 via email.

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: John Hurt Title: RES Specialist

Signature: Date: 2/11/20

email: JHurt@matadorresources.com Telephone: 972- 371-5200

OCD Only

Received by: Date:

Form C-141
Page 3

State of New Mexico
Oil Conservation Division

PO #: 3RHP3-191118-C-1410

Incident ID	
District RP	
Facility ID	General Kehoe Tank Battery
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	55 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

PO #: 3RHP3-191118-C-1410

Incident ID	
District RP	
Facility ID	General Kehoe Tank Battery
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: John Hurt . Title: RES Specialist

Signature: Date: 2/11/20

email: JHurt@matadorresources.com . Telephone: 972-371-5200 .

OCD Only

Received by: Date:

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

PO #: 3RHP3-191118-C-1410

Incident ID	
District RP	
Facility ID	General Kehoe Tank Battery
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

[x] A scaled site and sampling diagram as described in 19.15.29.11 NMAC

[x] Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

[x] Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

[x] Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: John Hurt Title: RES Specialist

Signature: Date: 2/11/20

email: JHurt@matadorresources.com Telephone: 972-371-5200

OCD Only

Received by: Date:

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Date:

Printed Name: Title:

NVV2003540716 GENERAL KEHOE TANK BATTERY @ A-02-24S-28E 0N 0E

February 3, 2020 Vertex Project #: 19E-04341-001

Spill Closure Report: General Kehoe Tank Battery
Unit 2, Section 2, Township 24 South, Range 28 East
County: Eddy
Purchase Order #:3RHP3-191118-C-1410

Prepared For: Matador Production Company
5400 LBJ Freeway
Suite 1500
Dallas, Texas 75240

KCUJD-200211-C-1410

New Mexico Oil Conservation Division – District 2 – Artesia
811 South First Street
Artesia, New Mexico 88210

Matador Production Company (Matador) retained Vertex Resource Services Inc. (Vertex) to conduct a spill assessment and remediation for a crude oil release that occurred at General Kehoe Tank Battery (hereafter referred to as "General Kehoe"). Matador provided notification of the spill to New Mexico Oil Conservation Division (NM OCD) District 2 and the Bureau of Land Management (BLM) on November 12, 2019, via email, and followed up with an initial C-141 Release Notification (Attachment 1), purchase order number 3RHP3-191118-C-1410. The NM OCD tracking number for this incident is not yet assigned.

This letter provides a description of the spill assessment and remediation activities, and demonstrates that closure criteria established in 19.15.29.12 *New Mexico Administrative Code* (NMAC; New Mexico Oil Conservation Division, 2018) have been met and all applicable regulations are being followed. This document is intended to serve as a final report to obtain approval from NM OCD for closure of this release.

Incident Description

On November 12, 2019, a release occurred at Matador's General Kehoe site when a seal on one of the heater treaters failed. This incident resulted in the release of approximately 45 barrels (bbls) of crude oil onto the engineered wellpad. A vac truck arrived on-site to recover free fluids; approximately 35 bbls of oil were recovered. The spill was contained on-site. No oil was released into undisturbed areas or waterways.

Site Characterization

The release at General Kehoe occurred on BLM-owned land, N 32.2534057, W 104.0535332, approximately 12 miles southeast of Carlsbad, New Mexico. The legal description for the site is Unit 2, Section 2, Township 24 South, Range 28 East, Eddy County, New Mexico. This location is within the Permian Basin in southeast New Mexico and has historically been used for oil and gas exploration and production, and farmland. An aerial photograph and site schematic are included in Attachment 2.

General Kehoe is typical of oil and gas exploration and production sites in the western portion of the Permian Basin, and

is currently used for oil and gas production, and storage. The following sections specifically describe the release area on the western portion of the wellpad where the production equipment is located.

The surrounding landscape falls on the border of prime farmland of statewide importance, associated with plains and low elongated hills typical of elevations between 1,250 and 4,800 feet above sea level, and less optimal land commonly found on fans and ridges adjacent. Average annual precipitation ranges between 10 and 25 inches in the prime farmland areas and 7 to 15 inches in areas less suited to farming. Historically, the plant communities in this area were dominated by grasses, such as tobosa, black grama and blue grama in the loamy sites that received runoff from the associated nearby ridges, and grassland/shrub mix on the steeper sideslopes of the ridges themselves (United States Department of Agriculture, Natural Resources Conservation Service, 2019). Limited to no vegetation is allowed to grow on the compacted wellpad.

The Geological Map of New Mexico indicates the surface geology at General Kehoe is comprised of Qa –alluvium (New Mexico Bureau of Geology and Mineral Resources, 2019). The Natural Resources Conservation Service (NRCS) *Web Soil Survey* characterizes the soil at the site as on the verge of Reeves loam and Upton gravelly loam. Reeves loam is characterized by loam and clay loam over a gypsiferous material and tends to be well drained with high runoff and low water storage in the soil profile. Upton gravelly loam is characterized by gravelly loam over a layer of cemented material and more gravelly loam. Upton gravelly loam tends to be well-drained with high runoff and very low available moisture levels in the soil profile (United States Department of Agriculture, Natural Resources Conservation Service, 2019). There is low-to-medium potential for karst geology to be present near General Kehoe (United States Department of the Interior, Bureau of Land Management, 2019).

There is no surface water located on-site. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 NMAC, is located approximately a half mile southeast of the site (United States Fish and Wildlife Service, 2019). There are no continuously flowing watercourses, lakebeds, sinkholes, playa lakes, or other critical water or community features as outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC.

The nearest active well to the site is a New Mexico Office of the State Engineer (NM OSE)-identified domestic well, with a depth to groundwater of 55 feet below ground surface (bgs), located approximately 1.2 miles north of General Kehoe (New Mexico Office of the State Engineer, New Mexico Water Rights Reporting System, 2019). Documentation pertaining to site characterization and depth to groundwater determination is included in Attachment 3.

Closure Criteria Determination

Using site characterization information, a closure criteria determination worksheet (Attachment 3) was completed to determine if the release was subject to any of the special case scenarios outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC.

Based on data included in the closure criteria determination worksheet, the release at General Kehoe is not subject to the requirements of Paragraph (4) of Subsection C of 19.15.29.12 NMAC and the closure criteria for the site are determined to be associated with the following constituent concentration limits.

Table 1. Closure Criteria for Soils Impacted by a Release		
Depth to Groundwater	**Constituent**	**Limit**
51≤100 feet	Chloride	10,000 mg/kg
	TPH[1] (GRO + DRO + MRO)	2,500 mg/kg
	GRO + DRO	1,000 mg/kg
	BTEX[2]	50 mg/kg
	Benzene	10 mg/kg

[1]Total petroleum hydrocarbons (TPH) = gasoline range organics (GRO) + diesel range organics (DRO) + motor oil range organics (MRO)
[2]Benzene, toluene, ethylbenzene and xylenes (BTEX)

Remedial Actions

An initial spill inspection and site characterization activities at General Kehoe were completed by Souder, Miller and Associates (SMA) in November 2019, and a remediation work plan was submitted to Matador. On December 17, 2019, Matador retained Vertex to complete remediation at General Kehoe through oversight of the remediation fieldwork and final confirmatory sampling.

On January 9, 2020, Vertex provided 48-hour notification of confirmation sampling to NM OCD and the BLM, as required by Subparagraph (a) of Paragraph (1) of Subsection D 19.15.29.12 NMAC (Attachment 4). Excavation of the contaminated soil was conducted between January 8 and January 20, 2020, with a Vertex representative on-site to conduct field screening to determine the horizontal and vertical extents of the excavation area. The Daily Field Reports (DFR) associated with these site visits are included in Attachment 5.

Following excavation, a total of four five-point composite confirmatory samples were collected from the base and side walls of the excavation at depths ranging between ground surface and 3 feet bgs. Each composite sample was representative of no more than 200 square feet per the alternate sampling method outlined in Subparagraph (c) of Paragraph (1) of Subsection D 19.15.29.12 NMAC, which does not require prior NM OCD approval. The composite samples were placed into laboratory-provided containers, preserved on ice, and submitted to a National Environmental Laboratory Accreditation Program (NELAP)-approved laboratory for chemical analysis.

Laboratory analyses included Method 300.0 for chlorides, Method 8021B for volatile organics, including BTEX, and EPA Method 8015 for TPH, including MRO, DRO and GRO. Confirmatory sample analytical data are summarized in Attachment 6. Laboratory data reports and chain of custody forms are included in Attachment 7.

A GeoExplorer 7000 Series Trimble global positioning system (GPS) unit was used to map the approximate center of each of the five-point composite samples. The confirmatory sample locations are presented on Figure 1 (Attachment 2). Relevant equipment and prominent features/reference points at the site are mapped as well.

Closure Request

Vertex recommends no additional remediation action to address the release at General Kehoe. Laboratory analyses of the final confirmatory samples showed constituent of concern concentration levels below NM OCD closure criteria for

areas where depth to groundwater is between 50 and 100 feet bgs as shown in Table 1. There are no anticipated risks to human, ecological or hydrological receptors associated with the release site.

Based on the location of the release on an active wellpad, Vertex requests that restoration and reclamation of the release area be deferred until such time as the well is plugged, the wellpad and production equipment are removed, and the pad reclaimed per 19.15.29.13 NMAC regulations.

Vertex requests that this incident be closed as all closure requirements set forth in Subsection E of 19.15.29.12 NMAC have been met. Matador certifies that all information in this report and the attachments is correct, and that they have complied with all applicable closure requirements and conditions specified in Division rules and directives to meet NM OCD requirements to obtain closure on the November 12, 2019, release at General Kehoe Tank Battery.

Should you have any questions or concerns, please do not hesitate to contact me at 505.506.0040 or ngordon@vertex.ca.

Sincerely,

Natalie Gordon
PROJECT MANAGER

Attachments

Attachment 1. NM OCD C-141 Report
Attachment 2. Site Schematic and Confirmatory Sample Locations
Attachment 3. Closure Criteria for Soils Impacted by a Release Research Determination Documentation
Attachment 4. Required 48-hr Notification of Confirmation Sampling to Regulatory Agencies
Attachment 5. Daily Field Report(s) with Photographs
Attachment 6. Confirmatory Sample Laboratory Results
Attachment 7. Laboratory Data Reports/COCs

References

New Mexico Bureau of Geology and Mineral Resources. (2019). *Interactive Geologic Map.* Retrieved from http://geoinfo.nmt.edu.

New Mexico Office of the State Engineer, New Mexico Water Rights Reporting System. (2019). *Water Column/Average Depth to Water Report.* Retrieved from http://nmwrrs.ose.state.nm.us/nmwrrs/waterColumn.html.

New Mexico Oil Conservation Division. (2018). *New Mexico Administrative Code – Natural Resources and Wildlife Oil and Gas Releases*. Santa Fe, New Mexico.

United States Department of Agriculture, Natural Resources Conservation Service. (2019). *Web Soil Survey*. Retrieved from https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.

United States Department of the Interior, Bureau of Land Management. (2019). *New Mexico Cave/Karsts*. Retrieved from https://www.blm.gov/programs/recreation/recreation-programs/caves/new-mexico.

United States Fish and Wildlife. (2019). National Wetlands Inventory. Retrieved from https://www.fws.gov/wetlands/Data/Mapper.html.

Limitations

This report has been prepared for the sole benefit of Matador Production Company (Matador). This document may not be used by any other person or entity, with the exception of the New Mexico Oil Conservation Division, without the express written consent of Vertex Resource Services Inc. (Vertex) and Matador. Any use of this report by a third party, or any reliance on decisions made based on it, or damages suffered as a result of the use of this report are the sole responsibility of the user.

The information and conclusions contained in this report are based upon work undertaken by trained professional and technical staff in accordance with generally accepted scientific practices current at the time the work was performed. The conclusions and recommendations presented represent the best judgement of Vertex based on the data collected during the assessment. Due to the nature of the assessment and the data available, Vertex cannot warrant against undiscovered environmental liabilities. Conclusions and recommendations presented in this report should not be considered legal advice.

ATTACHMENT 1

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Matador Production Company	OGRID: 228937
Contact Name: John Hurt	Contact Telephone: 972-371-5200
Contact email: JHurt@matadorresources.com	Incident # *(assigned by OCD)*
Contact mailing address: 5400 LBJ Freeway, Suite 1500 Dallas, TX 75240	

Location of Release Source

Latitude 32.2534057 Longitude -104.0535332
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: General Kehoe Tank Battery	Site Type: Tank Battery
Date Release Discovered: 11/12/2019	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
2	2	24S	28E	Eddy

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☒ Crude Oil	Volume Released (bbls) Approx. 45 bbls	Volume Recovered (bbls) Approx. 35 bbls
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐	Volume/Weight Released (provide units) 315 bbls	Volume/Weight Recovered (provide units)
Cause of Release: Failure on seal of Heater Treater		

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? >25 bbls
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes, by SMA (Melodie Sanjari) to NMOCD District 2 & BLM on 11/12/2019 via email.	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: John Hurt Title: RES Specialist

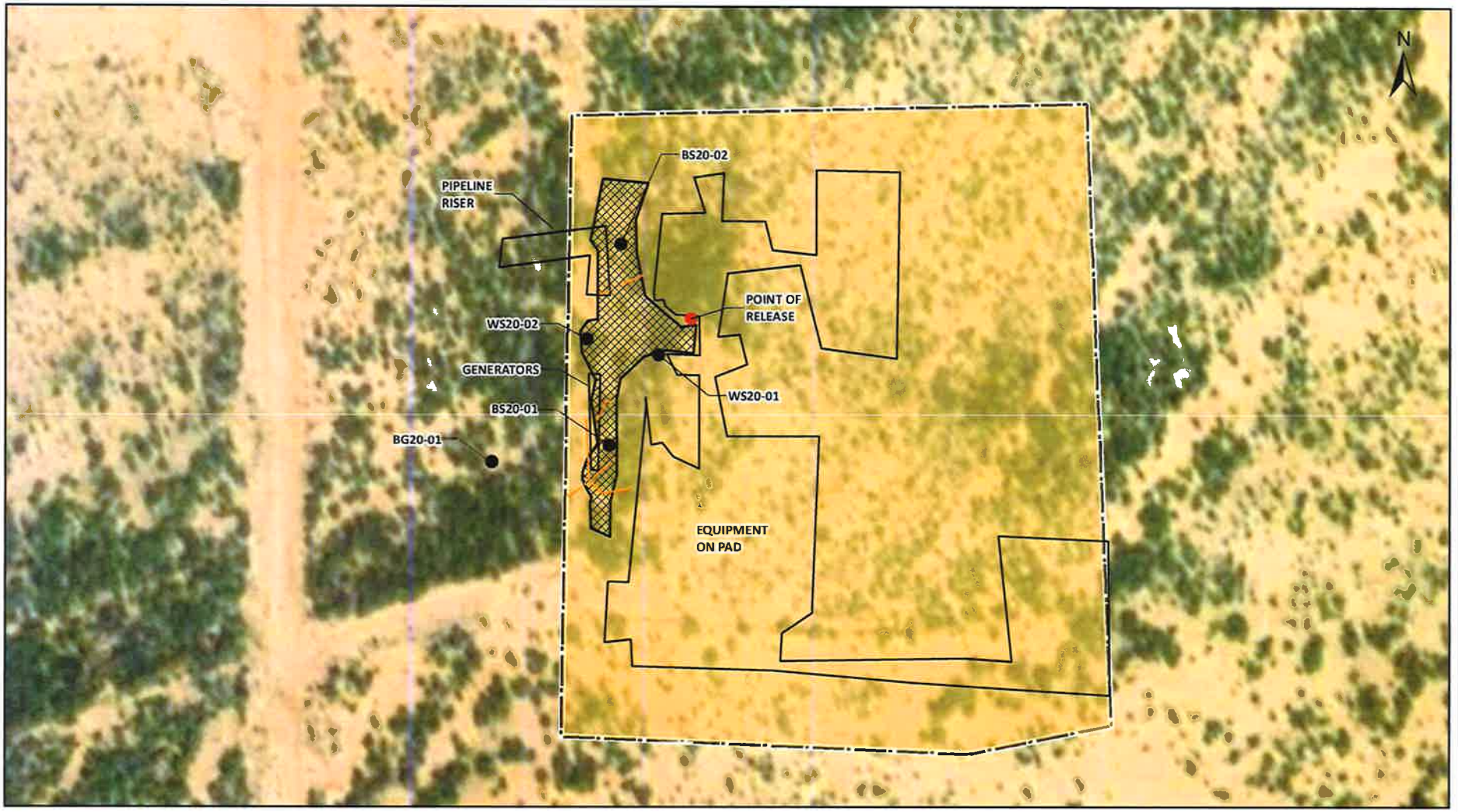
Signature: Date: 2/11/20

email: JHurt@matadorresources.com Telephone: 972- 371-5200

OCD Only

Received by: Date:

ATTACHMENT 2



LEGEND

- SOIL SAMPLE
- POINT OF RELEASE
- EXCAVATION AREA
- WELLPAD
- PIPELINE (ABOVEGROUND)
- PIPELINE (UNDERGROUND)

BS - BASE SAMPLE
WS - WALL SAMPLE
BG - BACKGROND SAMPLE

0 25 50 100 150 ft

SCALE 1:1,100

Notes: Aerial Image from ESRI Digital Globe 2018

Matador RESOURCES COMPANY

Site Schematic and Confirmatory Sample Locations General Kehoe Tank Battery

VERTEX

DRAWN:	NM
APPROVED:	MP
DATE:	JAN 19/20

FIGURE: 1

VERSATILITY. EXPERTISE.

ATTACHMENT 3

Table 1. Closure Criteria Determination			
Site Name: General Kehoe Tank Battery			
Spill Coordinates:		X: 32.2534057	Y: -104.0535332
Site Specific Conditions		Value	Unit
1	Depth to Groundwater	55	feet
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	3,492	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	6,633	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	3,313	feet
5	i) Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, **or**	6,447	feet
	ii) Within 1000 feet of any fresh water well or spring	22,944	feet
6	Within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves	No	(Y/N)
7	Within 300 feet of a wetland	3,449	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
9	Within an unstable area (Karst Map)	Medium	Critical High Medium Low
10	Within a 100-year Floodplain	> 100	year
NMAC 19.15.29.12 E (Table 1) Closure Criteria		51-100'	<50' 51-100' >100'

Column1
Critical
High
Medium
Low

Column1
Yes
No

<50'
51-100'
>100'

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW###### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-basin Code	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 02186	C	ED			2	02	24S	28E	589128	3568606*	312	100	55	45
C 02198	C	ED			1	01	24S	28E	589940	3568611*	843	78		
C 00511	C	ED		2	3	02	24S	28E	588518	3568001*	1115	268	140	128
C 00318	C	ED	2	4	4	34	23S	28E	587811	3569298*	1395	150		
C 03862 POD2	CUB	ED	3	3	3	01	24S	28E	589665	3567507	1499	30	10	20
C 03862 POD1	CUB	ED	3	3	3	01	24S	28E	589672	3567505	1504	17	10	7
C 03862 POD3	CUB	ED	3	3	3	01	24S	28E	589685	3567500	1513	60	10	50
C 03862 POD4	CUB	ED	3	3	3	01	24S	28E	589705	3567490	1529	30	10	20
C 03862 POD5	CUB	ED	4	3	3	01	24S	28E	589785	3567458	1589	17	10	7
C 02184	C	ED	2	4	3	01	24S	28E	590248	3567700*	1636	87	60	27
C 03535 POD1	C	ED	4	3	3	25	23S	28E	589860	3570751	1964	210	25	185
C 01082	CUB	ED	3	3	2	11	24S	28E	588832	3566693*	2247	120		
C 00475	CUB	ED	2	1	3	25	23S	28E	589822	3571347*	2519	144	38	106
C 01442	C	ED		1	2	10	24S	28E	587298	3567199*	2529	100		
C 01237	C	ED	1	1	2	10	24S	28E	587197	3567298*	2540	123		
C 00136 A	CUB	ED	4	4	4	25	23S	28E	591037	3570753*	2629	100	60	40
C 01747	CUB	ED				12	24S	28E	590367	3566577*	2636	176	139	37
C 01240	C	ED		1	3	34	23S	28E	586494	3569592*	2744	125	25	100
C 03001 EXPLORE	CUB	ED	1	1	4	25	23S	28E	590430	3571355*	2751	140		
C 00571 CLW241602	O CUB	ED	3	3	3	30	23S	29E	591241	3570757*	2782	89	38	51
C 01232	C	ED	2	3	1	34	23S	28E	586592	3570095*	2819	150		
C 03615 POD1	CUB	ED	1	3	2	06	24S	29E	591964	3568500	2840	60	36	24
C 00574	CUB	ED	2	4	4	11	24S	28E	589452	3566081*	2852	200	20	180
C 00571	CUB	ED	1	3	3	30	23S	29E	591241	3570957*	2918	90	38	52
C 00573	CUB	ED	2	2	4	04	24S	28E	586188	3568087*	3079	250	35	215
C 00570	CUB	ED		1	1	10	24S	28E	586490	3567195*	3172	100	28	72

***UTM location was derived from PLSS - see Help**

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-basin Code	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 01443	C	ED		2	1	25	23S	28E	590123	3572064*	3292	50	27	23
C 00136	CUB	ED	3	1	2	25	23S	28E	590426	3571967*	3304	200	42	158
C 00136 CLW194026	O CUB	ED	3	1	2	25	23S	28E	590426	3571967*	3304	200	52	148
C 00136 CLW235233	O CUB	ED	3	1	2	25	23S	28E	590426	3571967*	3304	200	42	158
C 01122	CUB	ED	1	1	1	26	23S	28E	587999	3572138*	3421	175	30	145
C 00464	CUB	ED	2	2	1	13	24S	28E	590277	3565674*	3432	111	28	83
C 03732 POD1	C	ED	1	3	3	27	23S	28E	586321	3570929	3474	171	10	161
C 00738	CUB	ED	3	1	1	13	24S	28E	589673	3565472*	3484	125	12	113
C 00618	C	ED	3	4	4	12	24S	28E	590880	3565885*	3489	80	40	40
C 00136 S	CUB	ED	1	1	2	25	23S	28E	590426	3572167*	3489	122	45	77
C 02524 POD2	C	ED	2	2	2	15	24S	28E	587814	3565690*	3494	90	11	79
C 00903	C	ED		2	1	13	24S	28E	590178	3565575*	3495	57	30	27
C 02306	C	ED		3	2	04	24S	28E	585690	3568382*	3505	75	25	50
C 00329	C	ED	2	1	2	13	24S	28E	590682	3565677*	3582	95	30	65
C 00684	CUB	ED	2	1	2	13	24S	28E	590682	3565677*	3582	95	40	55
C 01154	C	ED	2	1	2	13	24S	28E	590682	3565677*	3582	95	50	45
C 00890	CUB	ED	3	3	4	10	24S	28E	587211	3565897*	3591	50		
C 00983	C	ED	4	4	4	12	24S	28E	591080	3565885*	3592	92	40	52
C 03615 POD2	CUB	ED	4	2	4	06	24S	29E	592661	3568013	3622	60	26	34
C 00346	C	ED		2	2	15	24S	28E	587715	3565591*	3624	90	32	58
C 03432 POD1	C	ED	1	2	2	27	23S	28E	587527	3572162	3629	115	75	40
C 00381	C CUB	ED	3	2	3	07	24S	29E	591682	3566297*	3641	2797		
C 00488	C	ED	2	1	2	15	24S	28E	587412	3565688*	3669	64	8	56
C 00869 S-2	O CUB	ED		3	3	23	23S	28E	588097	3572444*	3681	150	58	92
C 00764	CUB	ED	3	1	3	10	24S	28E	586399	3566292*	3805	118	25	93
C 02182	C	ED			4	30	23S	29E	592328	3571048*	3822	75	30	45
C 01938	C	ED		2	4	28	23S	28E	586085	3571205*	3827	80	3	77
C 02713	CUB	ED	4	4	1	16	24S	29E	591633	3565944	3871	230	18	212
C 00641	C	ED	2	2	1	27	23S	28E	586986	3572126*	3872	115	40	75

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(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number		POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 03974 POD1		C	ED	2	2	1	27	23S	28E	587087	3572220	3896	75	43	32
C 00869		CUB	ED	3	3	4	22	23S	28E	587188	3572335*	3942	360		
C 00962		C	ED		3	3	10	24S	28E	586505	3565992*	3946	63	9	54
C 00443		C	ED	4	2	4	22	23S	28E	587790	3572745*	4063	171	160	11
C 03146		C	ED	1	1	3	24	23S	28E	589613	3572970*	4078	82	36	46
C 00340		C	ED		1	1	27	23S	28E	586483	3572022*	4095	117	18	99
C 02057		C	ED		1	4	14	24S	28E	588956	3564774*	4148	126	52	74
C 01870		C	ED		4	3	22	23S	28E	586885	3572432*	4183	105	48	57
C 00481		C	ED	3	2	1	33	23S	28E	585182	3570283*	4200	225	190	35
C 03703 POD1		C	ED	1	2	1	09	24S	28E	585259	3567225	4246	74	15	59
C 00453		C	ED	2	2	4	22	23S	28E	587790	3572945*	4252	65		
C 03706 POD1		C	ED	3	4	4	22	21S	27E	584939	3569812	4308	200		
C 03831 POD1		C	ED	4	3	1	33	23S	28E	584939	3569812	4308	300	52	248
C 00500		CUB	ED	4	3	1	24	23S	28E	589811	3573176*	4309	130		
C 00868		CUB	ED	4	3	1	24	23S	28E	589811	3573176*	4309	190		
C 03132		C	ED	1	2	4	15	24S	28E	587616	3564877*	4323	90	19	71
C 01472		CUB	ED	2	3	2	28	23S	28E	585730	3571652	4382	162	10	152
C 02836		C	ED	2	2	2	16	24S	28E	586203	3565676*	4383		15	
C 02847		CUB	ED	2	1	4	22	23S	28E	587386	3572941*	4394	80		
C 02849		CUB	ED	2	1	4	22	23S	28E	587386	3572941*	4394	60		
C 00048		CUB	ED	3	3	1	23	23S	28E	587997	3573160	4397	182	75	107
C 00048	C	CUB	ED	3	3	1	23	23S	28E	587997	3573160	4397	182	75	107
C 00750		CUB	ED	1	2	4	13	24S	28E	590898	3564871*	4406	110		
C 00024	O	CUB	ED			3	22	23S	28E	586682	3572629*	4459	242	48	194
C 04202 POD1	R	C	ED	4	3	3	28	23S	28E	585049	3570665	4462	400	60	340
C 00094		CUB	ED	3	4	2	22	23S	28E	587588	3573151*	4513	100	60	40
C 00094	C	CUB	ED	3	4	2	22	23S	28E	587588	3573151*	4513	100	60	40
C 00094 A	C	CUB	ED	3	4	2	22	23S	28E	587588	3573151*	4513	166	40	126
C 03965 POD4		CUB	ED		1	4	24	23S	28E	589918	3573381	4528	40	31	9

***UTM location was derived from PLSS - see Help**

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(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 02796		CUB	ED		2	3	22	23S	28E	586882	3572838*	4531	200		
C 03587 POD1		CUB	ED	1	4	3	29	23S	29E	593338	3570754	4569	99	44	55
C 01816		C	ED	1	3	1	23	23S	28E	587992	3573355*	4587	200	40	160
C 03965 POD5		CUB	ED	4	1	1	24	23S	28E	589864	3573534	4671	35	31	4
C 00154		CUB	ED	4	2	1	23	23S	28E	588595	3573566*	4682	196	38	158
C 01731		C	ED		4	2	05	24S	28E	584483	3568367*	4703	80	30	50
C 00154 CLW194067	O	CUB	ED	3	2	1	23	23S	28E	588395	3573566*	4710	150	65	85
C 01108		C	ED	3	2	1	23	23S	28E	588395	3573566*	4710	60	35	25
C 00349	C	CUB	ED		1	3	18	24S	29E	591401	3564773*	4714	2734		
C 01487 CLW201796	O	CUB	ED		3	2	22	23S	28E	587284	3573247*	4716	90	30	60
C 03824 POD1		CUB	ED	4	1	2	16	24S	28E	585770	3565578	4753	290	60	230
C 01102		C	ED		1	2	23	23S	28E	588901	3573672*	4761	100	12	88
C 00353	C	CUB	ED		3	4	13	24S	28E	590603	3564367*	4775	2726		
C 01487		CUB	ED	3	4	1	22	23S	28E	586779	3573142*	4846	150	38	112
C 00094 AS	C	CUB	ED	1	3	2	22	23S	28E	587183	3573346*	4847	165	40	125
C 03587 POD2		CUB	ED	1	2	4	19	23S	29E	592213	3572706	4869	77	16	61
C 00354	C	CUB	ED		4	4	13	24S	28E	591005	3564367*	4912	2739		
C 00327		CUB	ED	3	2	4	21	23S	28E	585974	3572728*	4963	212		

Average Depth to Water: **40 feet**
Minimum Depth: **3 feet**
Maximum Depth: **190 feet**

Record Count: 102

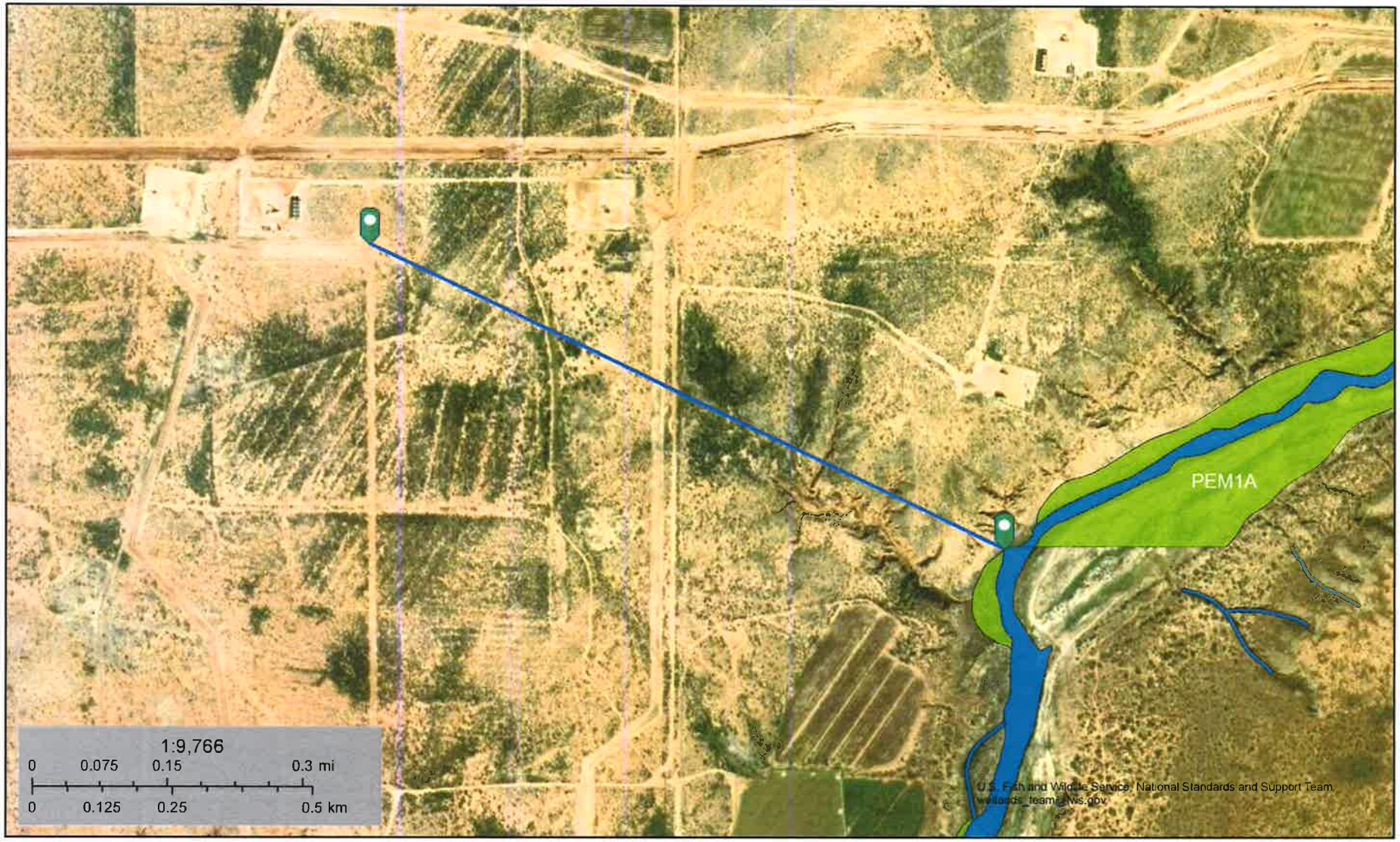
UTMNAD83 Radius Search (in meters):

Easting (X): 589153.88 **Northing (Y):** 3568917.39 **Radius:** 5000

***UTM location was derived from PLSS - see Help**

U.S. Fish and Wildlife Service
National Wetlands Inventory

General Kehoe Battery - 3,492 ft to River



December 16, 2019

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

U.S. Fish and Wildlife Service

National Wetlands Inventory

General Kehoe Battery - 6,633 ft to pond

December 16, 2019

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
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- Lake
- Other
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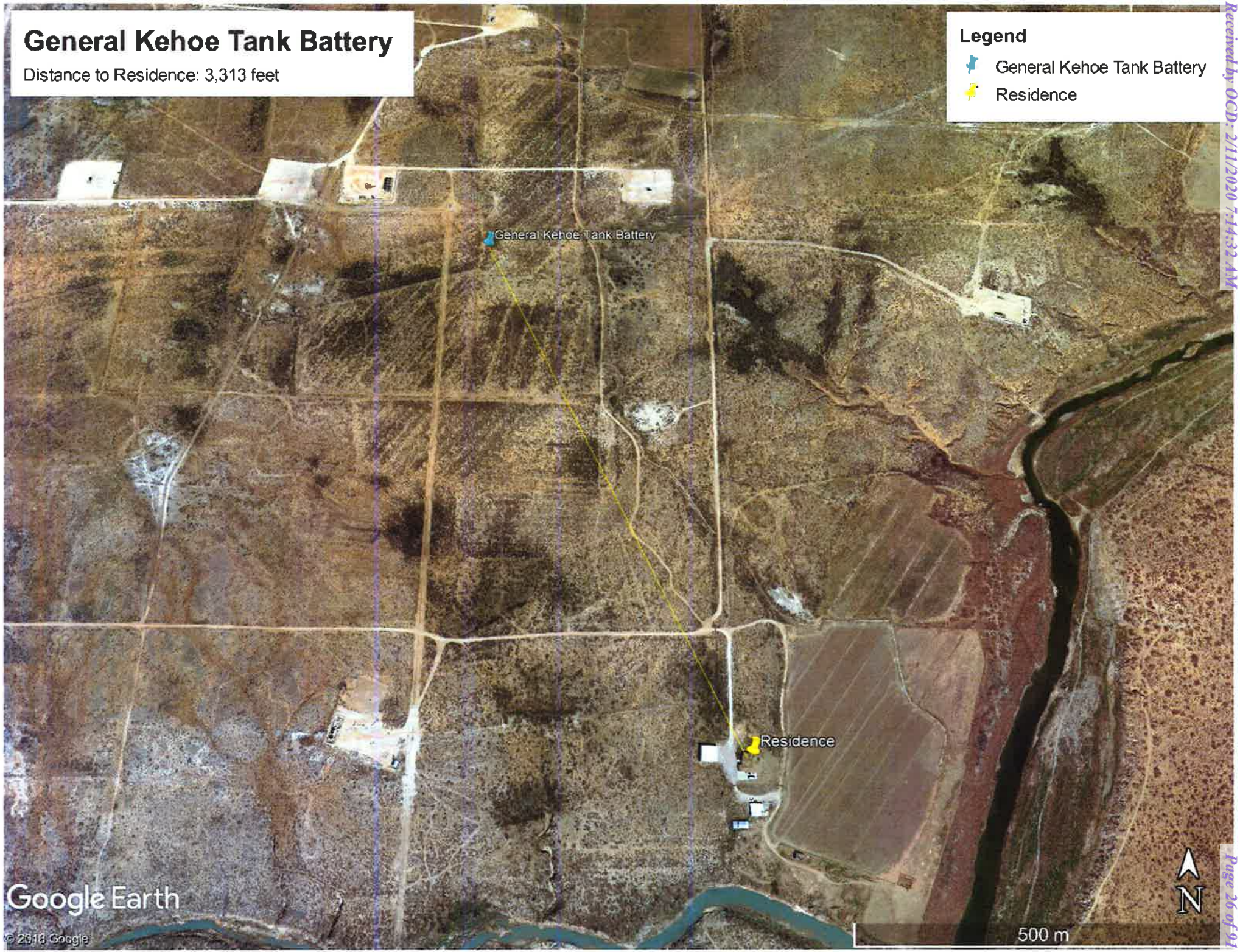
National Wetlands Inventory (NWI)
This page was produced by the NWI mapper



New Mexico Office of the State Engineer

Water Right Summary

get image list

WR File Number: C 03535 **Subbasin:** C **Cross Reference:** -

Primary Purpose: DOM 72-12-1 DOMESTIC ONE HOUSEHOLD

Primary Status: PMT PERMIT

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 1 **Cause/Case:** -

Owner: COLEY BURGESS

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	495562	72121	2012-02-22	PMT	LOG	C 03535	T		1	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 03535 POD1		Shallow	4	3	3	25	23S	28E	589860	3570751	WELL ADDRESS: 208 RABBIT HILL

New Mexico Office of the State Engineer

Water Right Summary

get image list

WR File Number: C 00318 **Subbasin:** C **Cross Reference:** -

Primary Purpose: DOM 72-12-1 DOMESTIC ONE HOUSEHOLD

Primary Status: EXP EXPIRED

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 0 **Cause/Case:** -

Owner: CAVENDER & RICHARDSON

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	198441	72121	1952-04-18	EXP	EXP	C 00318	T		3	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 00318			2	4	4	34	23S	28E	587811	3569298*	NW CORNER

*An (*) after northing value indicates UTM location was derived from PLSS - see Help

12/16/19 2:57 PM WATER RIGHT SUMMARY

New Mexico Office of the State Engineer

Water Right Summary

get image list

WR File Number: C 02084 **Subbasin:** C **Cross Reference:** -

Primary Purpose: DOL 72-12-1 DOMESTIC AND LIVESTOCK WATERING

Primary Status: EXP EXPIRED

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 0 **Cause/Case:** -

Owner: JIM BURLESON

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	468394	72121	1984-01-17	EXP	EXP	C 02084	T		3	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 02084				1	3	01	24S	28E	589741	3568003*	

*An (*) after northing value indicates UTM location was derived from PLSS - see Help

12/16/19 2:57 PM WATER RIGHT SUMMARY

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)

(R=POD has been replaced and no longer serves this file, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code	Grant	Source	q q q 6416 4	Sec	Twn	Rng	X	Y	Distance
C 02186	C	PRO	0	GRACE DRILLING CO.	ED	C 02186				Shallow	2	02	24S	28E	589128	3568606*	312
C 02198	C	PRO	0	MCVAY DRILLING COMPANY	ED	C 02198					1	01	24S	28E	589940	3568611*	843
C 02084	C	DOL	0	JIM BURLESON	ED	C 02084					1 3	01	24S	28E	589741	3568003*	1086
C 00511	C	PRO	0	RICHARDSON & BASS	ED	C 00511				Shallow	2 3	02	24S	28E	588518	3568001*	1115
C 00318	C	DOM	0	CAVENDER & RICHARDSON	ED	C 00318					2 4 4	34	23S	28E	587811	3569298*	1395
C 03862	CUB	EXP	0	ENVIRO DRILL INC	ED	C 03862 POD2			NON	Shallow	3 3 3	01	24S	28E	589664	3567507	1499
					ED	C 03862 POD1			NON	Shallow	3 3 3	01	24S	28E	589672	3567505	1504
					ED	C 03862 POD3			NON	Shallow	3 3 3	01	24S	28E	589685	3567500	1513
					ED	C 03862 POD4			NON	Shallow	3 3 3	01	24S	28E	589705	3567490	1529
					ED	C 03862 POD5			NON	Shallow	4 3 3	01	24S	28E	589785	3567458	1589
C 02184	C	PRO	0	SANTA FE ENERGY OPER. PARTNERS	ED	C 02184				Shallow	2 4 3	01	24S	28E	590248	3567700*	1636
C 03535	C	DOM	1	COLEY BURGESS	ED	C 03535 POD1				Shallow	4 3 3	25	23S	28E	589860	3570751	1965
C 01148	CUB	IRR	0	GUITAR EARL	ED	C 01148					4 4 2	36	23S	28E	591041	3569943*	2147
C 01303	CUB	IRR	39.97	SARAH M. WISDOM ANNIS	ED	C 01303				Shallow	4 4 2	36	23S	28E	591041	3569943*	2147
C 00006	CUB	IRR	0	W H SWEARINGEN	ED	C 00006						03	24S	28E	587087	3568199*	2188
C 00802	CUB	IRR	120	ALBERTO DUARTE	ED	C 00802					3 3 2	11	24S	28E	588832	3566693*	2247
C 01082	CUB	IRR	240	DAMON U. BOND	ED	C 01082				Shallow	3 3 2	11	24S	28E	588832	3566693*	2247
C 00475	CUB	IRR	178.5	JOY SUE GIOVENGO WELLS	ED	C 00475				Shallow	2 1 3	25	23S	28E	589822	3571347*	2519

***UTM location was derived from PLSS - see Help**

(R=POD has been replaced and no longer serves this file, C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters)

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code Grant	Source	q q q 6416 4	Sec	Twn	Rng	X	Y	Distance
C 01442	C	DOM	0	FRANK WILLIAMS	ED	C 01442				1 2	10	24S	28E	587298	3567199*	2529
C 01237	C	DOL	3	S. F. WILLIAMS	ED	C 01237			Shallow	1 1 2	10	24S	28E	587197	3567298*	2539
C 00136 A	CUB	IRR	306	JOHNNIE AND SHARON GIOVENGO	ED	C 00136 A			Shallow	4 4 4	25	23S	28E	591037	3570753*	2629
C 03122	C	DOL	3	JOHNNIE GIOVENGO, JR.	ED	C 00136 A			Shallow	4 4 4	25	23S	28E	591037	3570753*	2629
C 01747	CUB	EXP	0	GEORGE BRANTLEY	ED	C 01747			Shallow		12	24S	28E	590367	3566577*	2636
C 00555	C	DOM	0	C.F. BEEMAN	ED	C 00555				4 2 3	11	24S	28E	588625	3566296*	2674
C 03868	C	DOL	3	EFRAIN RIOS	ED	C 03868 POD1				3 4 2	10	24S	28E	587679	3566685	2674
C 03349	C	DOL	0	JOE MORMAN	ED	C 03349				3 3 4	27	23S	28E	587168	3570739	2695
C 01240	C	STK	3	T. R. CAVINESS	ED	C 01240			Shallow	1 3	34	23S	28E	586494	3569592*	2744
C 03001	CUB	EXP	0	JOHNNIE GIOVENGO	ED	C 03001 EXPLORE			Shallow	1 1 4	25	23S	28E	590430	3571355*	2751
C 01232	C	STK	3	T. R. CAVINESS	ED	C 01232			Shallow	2 3 1	34	23S	28E	586592	3570095*	2819
C 03615	CUB	MON	0	SOUTHWEST SALT COMPANY LLC	ED	C 03615 POD1			Shallow	1 3 2	06	24S	29E	591963	3568500	2840
C 00574	CUB	IRR	55.05	TOMMY JR. OR CARLA DUARTE	ED	C 00574			Shallow	2 4 4	11	24S	28E	589452	3566081*	2852
C 00574 A	CUB	IRR	119.4	PEDRO A. DUARTE	ED	C 00574			Shallow	2 4 4	11	24S	28E	589452	3566081*	2852
C 00053	CUB	IRR	0	ANTONIO CARDONA	ED	C 00053				2 3 1	25	23S	28E	589820	3571753*	2912
C 00571	CUB	IRR	362.4	JOHNNIE GIOVENGO, JR.	ED	C 00571			Shallow	1 3 3	30	23S	29E	591241	3570957*	2918
C 03121	C	DOL	3	JOHNNIE GIOVENGO, JR.	ED	C 00571			Shallow	1 3 3	30	23S	29E	591241	3570957*	2918
C 01930	C	DOL	0	OSCAR F VASQUEZ	ED	C 01930				3 4	11	24S	28E	588941	3565989*	2936
C 04351	CUB	MON	0	ARCADIS US INC/CHEVRON	ED	C 04351 POD2	NA			4 2 3	27	23S	28E	586927	3571040	3076
C 00573	CUB	IRR	260.1	GUADALUPE & YSABEL O. VASQUEZ	ED	C 00573			Shallow	2 2 4	04	24S	28E	586188	3568087*	3079
C 04351	CUB	MON	0	ARCADIS US INC/CHEVRON	ED	C 04351 POD1	NA			3 2 3	27	23S	28E	586807	3571025	3154
C 03952	C	DOL	3	ZACH STENSRUD	ED	C 03952 POD1				1 2 2	04	24S	28E	585984	3568930	3169

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WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code	Grant	Source	q 6416	q 4	Sec	Twn	Rng	X	Y	Distance
C 00570	CUB	IRR	0	FRANK Z. VASQUEZ	ED	C 00570				Shallow	1	1	10	24S	28E	586490	3567195*	3172
C 03990	C	STK	3	JIMMY J VASQUEZ	ED	C 03990 POD1			NON		1	4	4	10	24S	28E	587626	3566115	3191
C 01238	C	STK	3	S. F. WILLIAMS	ED	C 01238						1	1	25	23S	28E	589718	3572060*	3192
C 03383	C	STK	0	BILLY MELTON	ED	C 03383 POD1					2	3	3	27	23S	28E	586625	3570894	3209
C 04288	CUB	MON	0	. CHEVRON ENVIRONMETAL MGNT CO	ED	C 04288 POD1	NA				1	4	3	27	23S	28E	586696	3570985	3211
C 00580	CUB	IRR	0	GUILLERMO RUIZ	ED	C 00580					3	3	3	11	24S	28E	588017	3565903*	3221
C 02497	C	DOL	0	D S DUNN	ED	C 02497					3	2	3	27	23S	28E	586791	3571114*	3226
C 02713	CUB	IND	645	RED BLUFF WATER POWER CONTROL DISTRICT	ED	C 02713 POD2				Shallow	1	2	2	06	24S	29E	592389	3568849	3236
C 03737	C	DOL	0	JOHNNY REID	ED	C 03737 POD1					2	2	1	26	23S	28E	588519	3572124	3269
C 01443	C	STK	3	S. F. WILLIAMS	ED	C 01443				Shallow		2	1	25	23S	28E	590123	3572064*	3292
C 00136	CUB	IRR	657	JOHN OR JANICE WRIGHT	ED	C 00136				Shallow	3	1	2	25	23S	28E	590426	3571967*	3304
C 04262	C	DOL	3	OVBAR LAND & CATTLE, LLC	ED	C 04262	20753				2	1	2	14	24S	28E	588966	3565581	3340
C 01090	CUB	EXP	0	VALLEY LAND COMPANY	ED	C 01090						2	2	06	24S	29E	592563	3568831*	3410
C 01091	CUB	EXP	0	VALLEY LAND CO.	ED	C 01091						2	2	06	24S	29E	592563	3568831*	3410
C 04267	C	SAN	1	JOHN E RUIZ	ED	C 04267 POD1	2077A				1	1	1	14	24S	28E	587980	3565706	3418
C 01122	CUB	IRR	0	VICTOR QUEEN	ED	C 01122				Shallow	1	1	1	26	23S	28E	587999	3572138*	3421
C 00464	CUB	IRR	314.245	HENRY E MCDONALD	ED	C 00464				Shallow	2	2	1	13	24S	28E	590277	3565674*	3432
C 01766	CUB	IRR	375	ROXIE L. WILLIAMS TRUST	ED	C 01766					3	3	4	23	23S	28E	588806	3572354*	3454
C 01766 A	CUB	IRR	15	WOODROW AND RUBY BURKHAM	ED	C 01766					3	3	4	23	23S	28E	588806	3572354*	3454
C 01290	CUB	IRR	0	MCCARTY O J	ED	C 01290						1	2	04	24S	28E	585690	3568781*	3466
C 03732	C	STK	3	BILLY MELTON	ED	C 03732 POD1			NON	Shallow	1	3	3	27	23S	28E	586321	3570929	3474
C 00738	CUB	IRR	343.5	W.J. BURKHAM	ED	C 00738				Shallow	3	1	1	13	24S	28E	589673	3565472*	3484

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C 00618	C	DOM	3	ANNA LANDRUM	ED	C 00618				Shallow	3	4	4	12	24S	28E	590880	3565885*	3489
C 00136	CUB	IRR	657	JOHN OR JANICE WRIGHT	ED	C 00136 S				Shallow	1	1	2	25	23S	28E	590426	3572167*	3489
C 02524	C	DOM	3	TONY LOPEZ	ED	C 02524					2	2	2	15	24S	28E	587814	3565690*	3494
					ED	C 02524 POD2				Shallow	2	2	2	15	24S	28E	587814	3565690*	3494
C 02674	C	DOM	1	ALICE RUIZ	ED	C 02674	2077B				2	2	2	15	24S	28E	587814	3565690	3494
C 00903	C	DOL	3	HENRY MCDONALD	ED	C 00903				Shallow		2	1	13	24S	28E	590178	3565575*	3495
C 02469	C	DOM	0	FELIPE BARRERA	ED	C 02469						2	33	23S	28E		585888	3570187*	3503
C 02306	C	DOM	3	RUSS DUNBAR	ED	C 02306				Shallow		3	2	04	24S	28E	585690	3568382*	3504
C 01704	C	DOL	0	ALBERTO H GUTIERREZ JR	ED	C 01704					2	4	4	28	23S	28E	586187	3570897*	3566
C 03175	C	DOM	0	RAYMOND LUNSFORD	ED	C 03175					1	2	2	27	23S	28E	587595	3572134*	3574
C 00329	C	DOM	3	DEKALB AGRI. ASSOC. INC.	ED	C 00329				Shallow	2	1	2	13	24S	28E	590682	3565677*	3582
C 00684	CUB	IRR	0	EASTLAND OIL CO.	ED	C 00684				Shallow	2	1	2	13	24S	28E	590682	3565677*	3582
C 01154	C	PRO	0	MORRIS R. ANTWEIL	ED	C 01154				Shallow	2	1	2	13	24S	28E	590682	3565677*	3582
C 00890	CUB	DOM	3	M.G. CLEAVELAND	ED	C 00890					3	3	4	10	24S	28E	587211	3565897*	3591
C 00983	C	DOM	3	E J ROGERS	ED	C 00983				Shallow	4	4	4	12	24S	28E	591080	3565885*	3592
C 00868	CUB	IRR	936.42	DRAPER BRANTLEY, JR.	ED	C 00869 S2				Shallow	3	3	3	23	23S	28E	587996	3572343*	3615
C 00868 A	CUB	IRR	528.671	HENRY E MC DONALD	ED	C 00869 S2				Shallow	3	3	3	23	23S	28E	587996	3572343*	3615
C 00868 B	CUB	IRR	300	HENRY E. OR JACKIE DALE MCDONALD	ED	C 00869 S2				Shallow	3	3	3	23	23S	28E	587996	3572343*	3615
C 03615	CUB	MON	0	SOUTHWEST SALT COMPANY LLC	ED	C 03615 POD2				Shallow	4	2	4	06	24S	29E	592661	3568013	3622
C 00346	C	SAN	3	MALAGA SCHOOL	ED	C 00346				Shallow		2	2	15	24S	28E	587715	3565591*	3624
C 03432	C	DOM	1	RAYMOND LUNSFORD	ED	C 03432 POD1				Shallow	1	2	2	27	23S	28E	587527	3572162	3629
C 00381	CUB	CLS	0	TENNESSEE PRODUCING CO.	ED	C 00381		C			3	2	3	07	24S	29E	591682	3566297*	3641

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C 00488	C	DOM	3	CID	ED	C 00488				Shallow	2 1	2	15	24S	28E	587412	3565688*	3669
C 03436	C	DOM	1	JOE L. HERNANDEZ	ED	C 03436 POD1					2 1	2	27	23S	28E	587348	3572143	3697
C 04382	CUB	MON	0	BRANSON PROPERTIES LLC	ED	C 04382 POD1	NA				2 1	2	15	24S	28E	587401	3565647	3709
C 03642	C	DOL	0	EFRAIN RIOS	ED	C 03642 POD1			NA		3 3	1	10	24S	28E	586372	3566453	3715
C 00319	CUB	IRR	0	YARBO ARVIL RAY	ED	C 00319					1 3	2	33	23S	28E	585586	3570085*	3753
C 01306	CUB	EXP	0	T.R. CAVINESS	ED	C 01306					1 3	2	33	23S	28E	585586	3570085*	3753
C 00764	CUB	IRR	117.9	MIKE M. VASQUEZ	ED	C 00764				Shallow	3 1	3	10	24S	28E	586399	3566292*	3805
C 00764 A	CUB	IRR	20.4	EVELYN KAY WALKER FAULK	ED	C 00764				Shallow	3 1	3	10	24S	28E	586399	3566292*	3805
C 02182	C	PRO	0	SANTA FE ENERGY	ED	C 02182				Shallow		4	30	23S	29E	592328	3571048*	3822
C 01938	C	DOM	3	EDDIE P CAVALIER	ED	C 01938				Shallow		2 4	28	23S	28E	586085	3571205*	3827
C 04383	CUB	MON	0	BRANSON PROPERTIES LLC	ED	C 04383 POD1	NA				4 1	2	15	24S	28E	587389	3565499	3846
C 00868	CUB	IRR	936.42	DRAPER BRANTLEY, JR.	ED	C 00869 S				Shallow	4 3	4	22	23S	28E	587388	3572335*	3846
C 00868 A	CUB	IRR	528.671	HENRY E MC DONALD	ED	C 00869 S				Shallow	4 3	4	22	23S	28E	587388	3572335*	3846
C 02713	CUB	IND	645	RED BLUFF WATER POWER CONTROL DISTRICT	ED	C 02713				Shallow	4 4	1	16	24S	29E	591633	3565944	3871
C 03360	C	PRO	0	REEF EXPLORATION	ED	C 02713				Shallow	4 4	1	16	24S	29E	591633	3565944	3871
C 00641	C	DOM	3	SANTOS PARRAZ	ED	C 00641				Shallow	2 2	1	27	23S	28E	586986	3572126*	3872
C 02599	C	DOM	0	D S DUNN	ED	C 02599					2 2	1	27	23S	28E	586986	3572126*	3872
C 03974	C	DOM	1	JAVIER SIERRA	ED	C 03974 POD1				Shallow	2 2	1	27	23S	28E	587087	3572220	3896
C 00868	CUB	IRR	936.42	DRAPER BRANTLEY, JR.	ED	C 00869				Shallow	3 3	4	22	23S	28E	587188	3572335*	3942
C 00868 A	CUB	IRR	528.671	JACKIE D MC DONALD	ED	C 00869				Shallow	3 3	4	22	23S	28E	587188	3572335*	3942
C 00868 B	CUB	IRR	300	HENRY E. OR JACKIE DALE MCDONALD	ED	C 00869				Shallow	3 3	4	22	23S	28E	587188	3572335*	3942
C 00962	C	STK	3	H F WALKER	ED	C 00962				Shallow		3 3	10	24S	28E	586505	3565992*	3946

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C 00443	C	DOM	3	NIEVES B. JASSO	ED	C 00443				Shallow	4	2 4	22	23S	28E	587790	3572745*	4063
C 03146	C	DOL	3	DRAPER BRANTLEY JR	ED	C 03146				Shallow	1	1 3	24	23S	28E	589613	3572970*	4078
C 00340	C	DOM	3	SERAPIO PARROZ	ED	C 00340				Shallow		1 1	27	23S	28E	586483	3572022*	4095
C 02057	C	PRO	0	POGO PRODUCING CO.	ED	C 02057				Shallow		1 4	14	24S	28E	588956	3564774*	4148
C 01870	C	DOL	3	JAMES L MCCLARY	ED	C 01870				Shallow		4 3	22	23S	28E	586885	3572432*	4183
C 00481	C	DOM	0	J. B. MOORE	ED	C 00481				Shallow	3	2 1	33	23S	28E	585182	3570283*	4200
C 03703	C	DOM	1	BLACK RIVER PROPERTY	ED	C 03703 POD1			NON	Shallow	1	2 1	09	24S	28E	585259	3567225	4246
C 00453	C	DOM	3	MAXIMIANO JASSO	ED	C 00453					2	2 4	22	23S	28E	587790	3572945*	4252
C 00768	CUB	IRR	0	MARCELO P. NAVARRETTE	ED	C 00768						2 3	13	24S	28E	590194	3564770*	4275
C 03852	C	STK	3	MITCHELL BALLARD	ED	C 03852 POD1			NON		2	1 3	33	23S	28E	584952	3569766	4286
C 03706	C	STK	0	WINSTON BALLARD	ED	C 03706 POD1					3	4 4	22	21S	27E	584939	3569812	4308
C 03831	C	DOM	1	MITCHELL BALLARD	ED	C 03831 POD1			NON	Shallow	4	3 1	33	23S	28E	584939	3569812	4308
C 00500	CUB	IRR	200.13	C.A. CARRASCO, JR.	ED	C 00500					4	3 1	24	23S	28E	589811	3573176*	4309
C 00868	CUB	IRR	936.42	DRAPER BRANTLEY, JR.	ED	C 00868				Shallow	4	3 1	24	23S	28E	589811	3573176*	4309
C 00868 A	CUB	IRR	528.671	JACKIE D MC DONALD	ED	C 00868				Shallow	4	3 1	24	23S	28E	589811	3573176*	4309
C 00868 B	CUB	IRR	300	HENRY E. OR JACKIE DALE MCDONALD	ED	C 00868				Shallow	4	3 1	24	23S	28E	589811	3573176*	4309
C 03132	C	DOL	3	BRANTLEY BROTHERS	ED	C 03132				Shallow	1	2 4	15	24S	28E	587616	3564877*	4323
C 01961	C	DOL	0	DRAPER BRANTLEY JR	ED	C 01961						1 4	22	23S	28E	587287	3572842*	4345
C 02256	C	DOM	3	ROBERT HIGGINS	ED	C 02256					3	2 3	13	24S	28E	590093	3564669*	4350
C 01472	CUB	IRR	435.9	ONSUREZ VICTOR F	ED	C 01472				Shallow	2	3 2	28	23S	28E	585730	3571652	4382
C 03545	C	PRO	0	VICTOR ONSUREZ	ED	C 01472				Shallow	2	3 2	28	23S	28E	585730	3571652	4382
C 03546	C	PRO	0	COG OPERATING LLC	ED	C 01472				Shallow	2	3 2	28	23S	28E	585730	3571652	4382

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C 03547	C	PRO	0	COG OPERATING LLC	ED	C 01472				Shallow	2 3 2	28	23S	28E	585730	3571652	4382
C 02799	C	DOL	0	EFREN B COLLINS	ED	C 02799					2 2 2	16	24S	28E	586203	3565676*	4383
C 02836	C	STK	3	EFREN COLLINS	ED	C 02836				Shallow	2 2 2	16	24S	28E	586203	3565676*	4383
C 02847	CUB	COM	40	DRAPER BRANTLEY JR.	ED	C 02847					2 1 4	22	23S	28E	587386	3572941*	4394
C 02849	CUB	COM	40	HENRY MCDONALD	ED	C 02849					2 1 4	22	23S	28E	587386	3572941*	4394
C 00048	CUB	CLS	0	JOHHNY L. REID	ED	C 00048		C		Shallow	3 3 1	23	23S	28E	587997	3573160	4397
C 00048 1	CUB	IRR	124.589	JACKIE REID	ED	C 00048				Shallow	3 3 1	23	23S	28E	587997	3573160	4397
C 00048 2	CUB	STO	0.739	JOHNNY L REID	ED	C 00048				Shallow	3 3 1	23	23S	28E	587997	3573160	4397
C 00048 A	CUB	CLS	0	WILLIAM & MARIA T STENNIS REVOCABLE TRUST	ED	C 00048		C		Shallow	3 3 1	23	23S	28E	587997	3573160	4397
C 00154	CUB	CLS	0	JOHNNY L. REID	ED	C 00048				Shallow	3 3 1	23	23S	28E	587997	3573160	4397
C 00750	CUB	IRR	74.7	BETH ANN BOTROS	ED	C 00750				Shallow	1 2 4	13	24S	28E	590898	3564871*	4406
C 04202	C	SAN	1	BLAKELY CONSTRUCTION CO	ED	C 04202 POD2	20757		NON		4 3 3	28	23S	28E	585072	3570655	4435
					ED	C 04202 POD1	206B1	R	NON	Shallow	4 3 3	28	23S	28E	585048	3570665	4461
C 00048	CUB	CLS	0	JOHHNY L. REID	ED	C 00094		C		Shallow	3 4 2	22	23S	28E	587588	3573151*	4513
C 00094 A	CUB	CLS	0	DOROTHY W. QUEEN	ED	C 00094		C		Shallow	3 4 2	22	23S	28E	587588	3573151*	4513
					ED	C 00094 A		C		Shallow	3 4 2	22	23S	28E	587588	3573151*	4513
C 00154	CUB	CLS	0	JOHNNY L. REID	ED	C 00094				Shallow	3 4 2	22	23S	28E	587588	3573151*	4513
C 01137	CUB	EXP	0	MORRIS R. ANTWEIL	LE	C 01137					4 1 4	13	24S	28E	590696	3564670*	4518
C 03965	CUB	MON	0	ROCKCLIFF OPERATING NM LLC	ED	C 03965 POD4				Shallow	1 4	24	23S	28E	589918	3573381	4528
C 02796	CUB	MON	0	IMC	ED	C 02796					2 3	22	23S	28E	586882	3572838*	4531
C 03587	CUB	MON	0	MOSAIC POTASH CARLSBAD INC	ED	C 03587 POD1				Shallow	1 4 3	29	23S	29E	593337	3570754	4569
C 01816	C	DOL	3	A R DONALDSON	ED	C 01816				Shallow	1 3 1	23	23S	28E	587992	3573355*	4587

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C 03965	CUB	MON	0	ROCKCLIFF OPERATING NM LLC	ED	C 03965 POD1					2 3 1	24	23S	28E	589799	3573463	4591
					ED	C 03965 POD2					2 3 1	24	23S	28E	589891	3573473	4615
					ED	C 03965 POD5				Shallow	4 1 1	24	23S	28E	589864	3573534	4671
C 00154	CUB	CLS	0	JOHNNY L. REID	ED	C 00154				Shallow	4 2 1	23	23S	28E	588595	3573566*	4682
C 03965	CUB	MON	0	ROCKCLIFF OPERATING NM LLC	ED	C 03965 POD3					3 2 1	24	23S	28E	590013	3573527	4689
C 01731	C	STK	3	HECTOR N VALDEZ	ED	C 01731				Shallow	4 2	05	24S	28E	584483	3568367*	4703
C 03756	C	STK	0	BRANTLEY BROTHERS	ED	C 03756 POD1			NON		1 4 4	15	24S	28E	587599	3564476	4704
C 00048 A	CUB	CLS	0	WILLIAM & MARIA T STENNIS REVOCABLE TRUST	ED	C 00154 POD2		C			3 2 1	23	23S	28E	588395	3573566*	4710
C 00154	CUB	CLS	0	JOHNNY L. REID	ED	C 00154 POD2					3 2 1	23	23S	28E	588395	3573566*	4710
C 01108	C	STK	3	CLARENCE REID	ED	C 01108				Shallow	3 2 1	23	23S	28E	588395	3573566*	4710
C 00349	CUB	CLS	0	E.L. WILSON	ED	C 00349		C			1 3	18	24S	29E	591401	3564773*	4714
C 03606	CUB	EXP	0	VICTOR F. ONSUREZ	ED	C 03606 POD1					3 3 3	28	23S	28E	584810	3570765	4720
C 03978	CUB	EXP	0	EFREN COLLINS	ED	C 03978 POD1			NON		2 1 2	16	24S	28E	585804	3565591	4720
C 04352	C	DOM	1	KB SERVICES LLC	ED	C 04352 POD1	22447				4 2 1	16	24S	28E	585798	3565591	4724
C 04198	CUB	EXP	0	EFREN COLLINS	ED	C 04198 POD1	NA				2 1 2	16	24S	28E	585779	3565600	4731
C 00024	CUB	IRR	246.959	HENRY E MCDONALD	ED	C 00024 S					1 3	22	23S	28E	586478	3572834*	4743
C 03824	CUB	EXP	0	ZULEMA F COLLINS	ED	C 03824 POD1				Shallow	4 1 2	16	24S	28E	585770	3565578	4753
C 03880	C	PRO	0	CONCHO OIL & GAS	ED	C 03824 POD1				Shallow	4 1 2	16	24S	28E	585770	3565578	4753
C 03881	C	PRO	0	CONCHO OIL & GAS	ED	C 03824 POD1				Shallow	4 1 2	16	24S	28E	585770	3565578	4753
C 03882	C	PRO	0	CONCHO OIL & GAS	ED	C 03824 POD1				Shallow	4 1 2	16	24S	28E	585770	3565578	4753
C 01102	C	STK	3	C. L. REID	ED	C 01102				Shallow	1 2	23	23S	28E	588901	3573672*	4761
C 00353	CUB	CLS	0	DEKALB AGRICULTURAL ASSOC.	ED	C 00353		C			3 4	13	24S	28E	590603	3564367*	4775

***UTM location was derived from PLSS - see Help**

(acre ft per annum)

(R=POD has been replaced and no longer serves this file, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code	Grant	Source	q q q 6416 4	Sec	Tws	Rng	X	Y	Distance
C 01266	CUB	IRR	0	HAROLD WALKER	ED	C 01266					4 2	16	24S	28E	586106	3565171*	4829
C 01487	CUB	IRR	226.8	JAVIER S.& BRETHA A. JASSO	ED	C 01487				Shallow	3 4 1	22	23S	28E	586779	3573142*	4846
C 02913	C	DOL	3	JAVIER S JASSO	ED	C 02913					3 4 1	22	23S	28E	586779	3573142*	4846
C 00094 A	CUB	CLS	0	DOROTHY W. QUEEN	ED	C 00094 AS		C		Shallow	1 3 2	22	23S	28E	587183	3573346*	4847
C 03587	CUB	MON	0	MOSAIC POTASH CARLSBAD INC	ED	C 03587 POD2				Shallow	1 2 4	19	23S	29E	592213	3572706	4869
C 00354	CUB	CLS	0	DEKALB ALGRICULTURAL ASSN. INC	ED	C 00354		C			4 4	13	24S	28E	591005	3564367*	4912
C 00024	CUB	IRR	246.959	HENRY E MCDONALD	ED	C 00327				Shallow	3 2 4	21	23S	28E	585974	3572728*	4963
C 00327	CUB	IRR	269.881	HENRY E MCDONALD	ED	C 00327				Shallow	3 2 4	21	23S	28E	585974	3572728*	4963

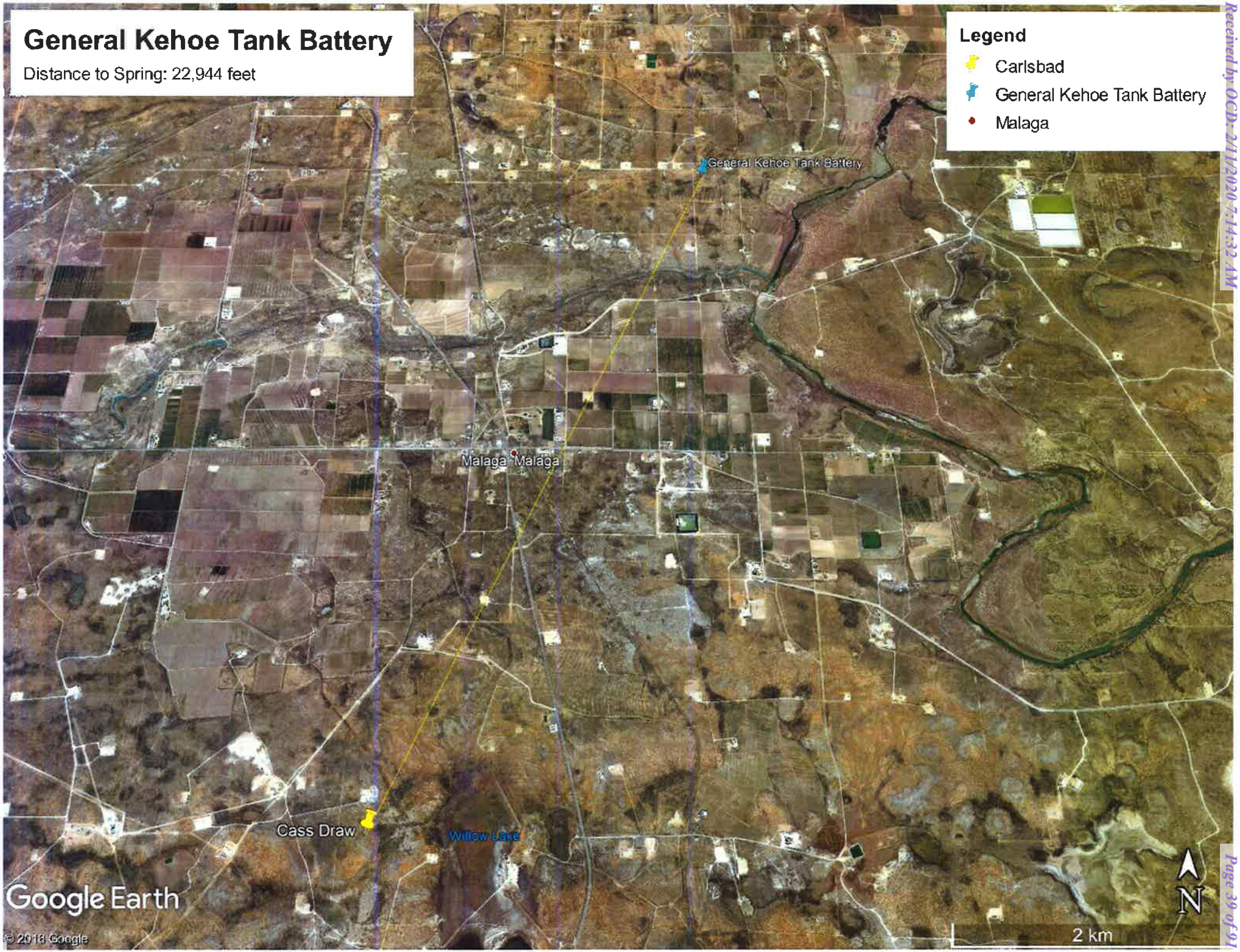
Record Count: 180

UTMNAD83 Radius Search (in meters):

Easting (X): 589153.8 **Northing (Y):** 3568917.39 **Radius:** 5000

Sorted by: Distance

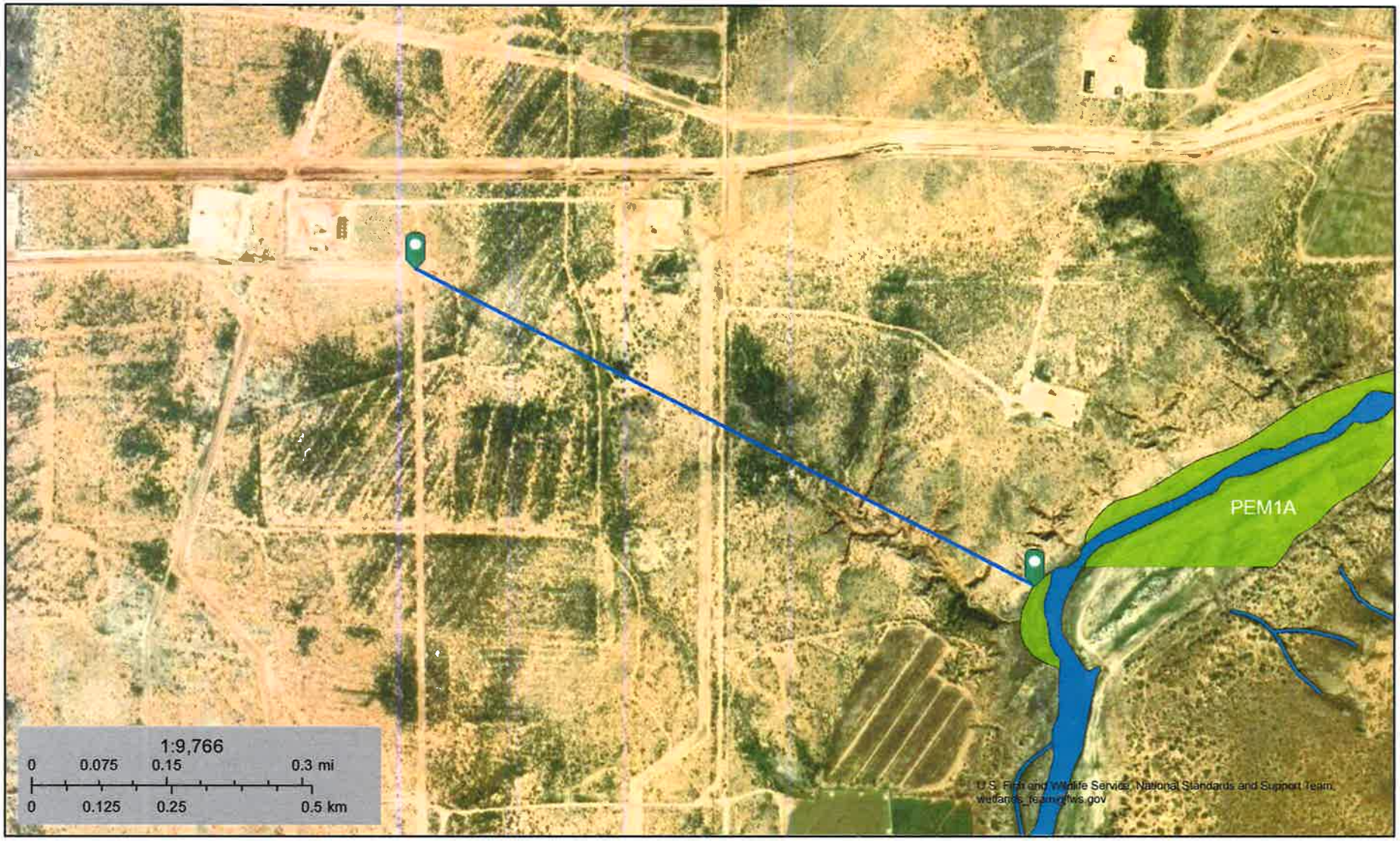
***UTM location was derived from PLSS - see Help**



U.S. Fish and Wildlife Service

National Wetlands Inventory

General Kehoe - 3,449 ft to Wetland



December 16, 2019

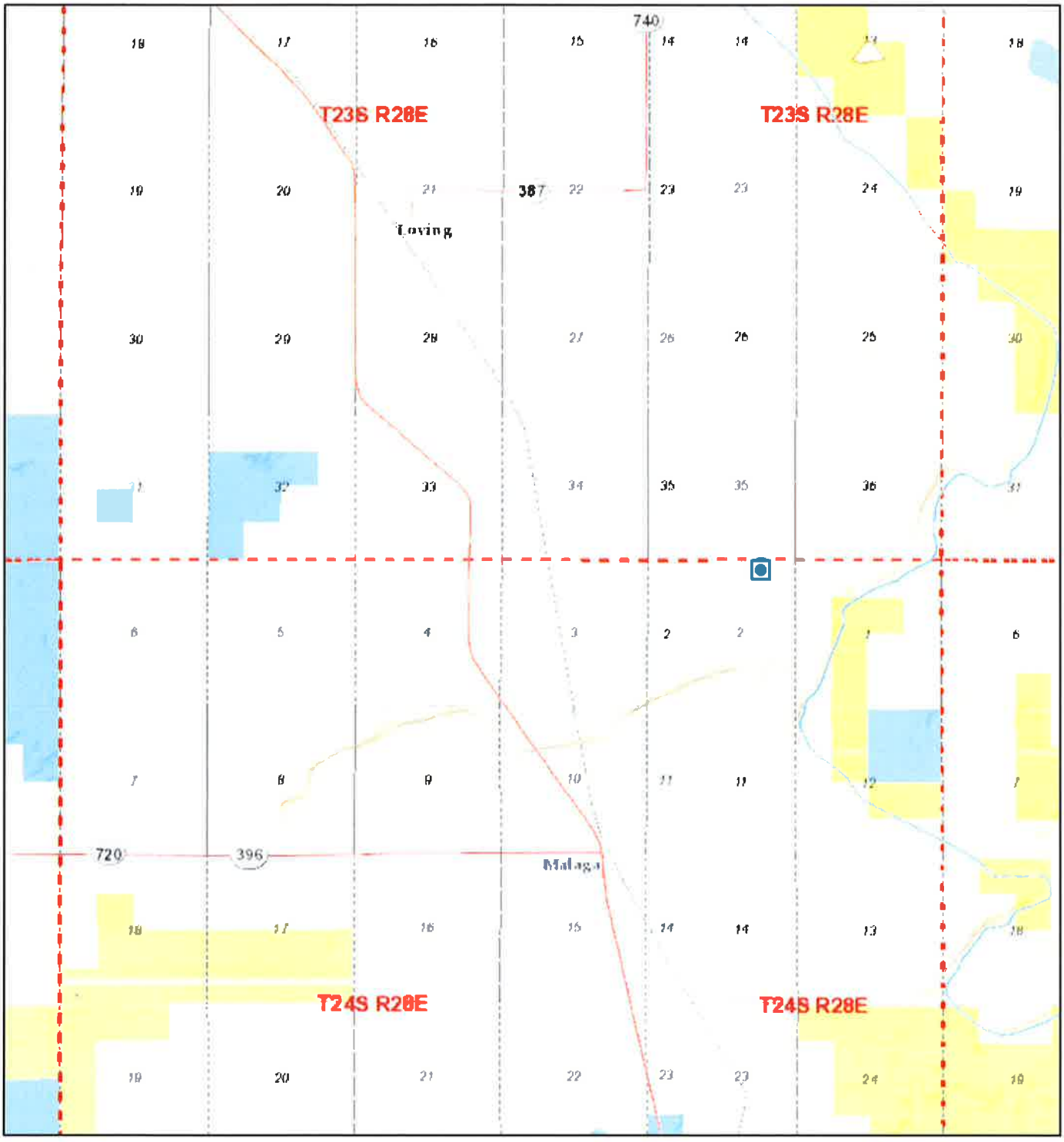
Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Active Mines - General Kehoe Tank Battery



12/16/2019, 2:24:17 PM

1:72,224

0 0.5 1 2 mi

0 0.75 1.5 3 km

Registered Mines

Aggregate, Stone etc.

Salt

U.S. Bureau of Land Management - New Mexico State Office, Sources: Esri, USGS, NOAA, Sources: Esri, Garmin, USGS, NPS

EMNRD MMD GIS Coordinator

NM Energy, Minerals and Natural Resources Department (http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=1b5e577974664d689b47790897ca2795)

National Flood Hazard Layer FIRMette

FEMA

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee. See Notes. Zone X
- Area with Flood Risk due to Levee Zone D

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard Zone X
- Effective LOMRs
- Area of Undetermined Flood Hazard Zone D

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 12/16/2019 at 4:27:29 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

R042XC007NM — Loamy Ecological Site

Plant Community Photos

Plant Communities Photo Display & Descriptive Diagnosis

MLRA 42; SD-3; Loamy

Grassland

•Tobosa-black grama, some yucca and prickly pear
•Grass cover moderate, distributed fairly uniform
•Few large bare patches

Grassland

•Tobosa-burrograss, with some black grama and scattered prickly pear
•Grass cover moderate
•Few large bare patches
•Russler silt loam

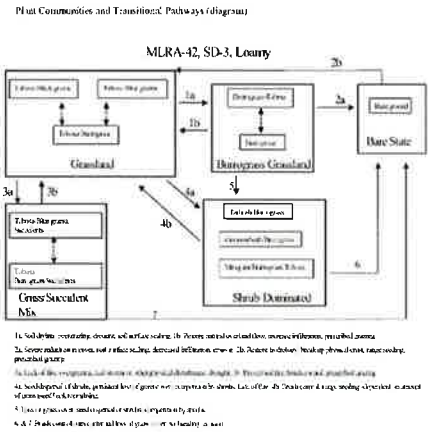
Transition towards shrub Dominated

•Tarbush / burrograss, with some tobosa
•Fine textured calcareous soils
•Bare patches evident
•Soil surface sealing
•Reagan silt loam

Shrub-Dominated

• Mesquite / burrograss, with scattered patches of tobosa
•Sandy surface over finer textured soils
•Grass cover moderate to low
•Bare patches evident

Historic Climax Plant Community



State Transition Diagram for R042XC007NM — Loamy Ecological Site

Ecological Dynamics Description

Overview: The Loamy site is associated with the Gyp Upland ecological site with which it intergrades. There is a pronounced increase in alkali sacaton along this interface. The loamy site is also associated with the Gravelly and Shallow ecological sites from which it receives run-on water. The Draw site often dissects Loamy sites and is distinguished from the Loamy site by increased production or greater densities of woody species. The historic plant community has a grassland aspect, dominated by grasses with shrubs and half-shrubs sparse and evenly distributed. Tobosa, black grama and blue grama are the dominant species. Retrogression within this state is characterized by a decrease in black and blue grama and an increase in burrograss. Continuous overgrazing and drought can initiate a transition to a Burrograss- Grassland state. Continued reduction in grass cover and resulting infiltration problems may eventually effect a change to a Bare State, with very little or no remaining grass cover. Alternatively, creosotebush, tarbush or mesquite may expand or invade. Transitions back to a Grassland State from a Bare or Shrub-Dominated state are costly and may not be economically feasible. Decreased fire frequency may play a part in the transition to the Grass/Succulent Mix state with increased amounts of cholla and prickly pear.

R042XC025NM — Shallow Ecological Site

Plant Community Photos

Plant Communities Photo Display & Descriptive Diagnosis

MLRA 42; SD-3; Shallow

Grass/Shrub mix

•Threeawns-black grama community
•Grass recovery following treatment with tebuthiuron
•Transition back to Grass/Shrub mix

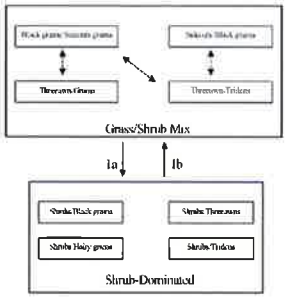
Shrub-Dominated

•Creosotebush-catclaw mimosa, with some broom snakeweed and a few scattered mesquite
•Grass cover (hairy tridens-black grama) patchy, large connected bare areas present
•Upton gravelly loam, Eddy Co , NM

Grass/Shrub Mix

Plant Communities and Transitional Pathways (diagram)

MLRA-42, SD-3, Shallow



1a. Extended drought, overgrazing, no fire
1b. Brush control, Prescribed grazing

State Transition Diagram for R042XC025NM — Shallow Ecological Site

Ecological Dynamics Description

Overview:

The Shallow site is associated with and Limestone Hills, Loamy, and Shallow Sandy sites. When associated with Limestone Hills, the Shallow site occurs on the summits, foot slopes and toeslopes of hills. Loamy sites often occur as areas between low elongated hills with rounded crests (Shallow site). When the Shallow Sandy site and Shallow site occur in association, the Shallow Sandy soils occupy the tops of low ridges and the Shallow site soils occur on the steeper sideslopes of the ridge. The historic plant community of the Shallow site has the aspect of a grassland/shrub mix, dominated by grasses, but with shrubs common throughout the site. Black grama is the dominant grass species; creosotebush, mesquite, and catclaw mimosa are common shrubs. Overgrazing and or extended drought can reduce grass cover, effect a change in grass species dominance, and may result in a shrub-dominated state. 1

Eddy Area, New Mexico

RI—Reeves loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 1w5p
Elevation: 1,250 to 4,800 feet
Mean annual precipitation: 10 to 25 inches
Mean annual air temperature: 57 to 70 degrees F
Frost-free period: 120 to 225 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Reeves and similar soils: 98 percent
Minor components: 2 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Reeves

Setting

Landform: Plains, ridges, hills
Landform position (two-dimensional): Backslope, footslope, shoulder, toeslope
Landform position (three-dimensional): Side slope, crest, nose slope, head slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Residuum weathered from gypsum

Typical profile

Ap - 0 to 8 inches: loam
H2 - 8 to 32 inches: clay loam
H3 - 32 to 60 inches: gypsiferous material

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 25 percent
Gypsum, maximum in profile: 80 percent
Salinity, maximum in profile: Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Low (about 4.3 inches)

Interpretive groups

Land capability classification (irrigated): 3s
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: B
Ecological site: Loamy (R042XC007NM)
Hydric soil rating: No

Minor Components

Cottonwood

Percent of map unit: 1 percent
Ecological site: Gyp Upland (R042XC006NM)
Hydric soil rating: No

Karro

Percent of map unit: 1 percent
Ecological site: Limy (R042XC030NM)
Hydric soil rating: No

Data Source Information

Soil Survey Area: Eddy Area, New Mexico
Survey Area Data: Version 15, Sep 15, 2019

Eddy Area, New Mexico

Uo—Upton gravelly loam, 0 to 9 percent slopes

Map Unit Setting

National map unit symbol: 1w67
Elevation: 1,100 to 4,400 feet
Mean annual precipitation: 7 to 15 inches
Mean annual air temperature: 60 to 70 degrees F
Frost-free period: 200 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Upton and similar soils: 96 percent
Minor components: 4 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Upton

Setting

Landform: Fans, ridges
Landform position (three-dimensional): Side slope, rise
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from limestone

Typical profile

H1 - 0 to 9 inches: gravelly loam
H2 - 9 to 13 inches: gravelly loam
H3 - 13 to 21 inches: cemented
H4 - 21 to 60 inches: very gravelly loam

Properties and qualities

Slope: 0 to 9 percent
Depth to restrictive feature: 7 to 20 inches to petrocalcic
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high (0.01 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 75 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Very low (about 1.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D
Ecological site: Shallow (R042XC025NM)
Hydric soil rating: No

Minor Components

Upton
Percent of map unit: 1 percent
Ecological site: Shallow (R042XC025NM)
Hydric soil rating: No

Atoka
Percent of map unit: 1 percent
Ecological site: Loamy (R042XC007NM)
Hydric soil rating: No

Atoka
Percent of map unit: 1 percent
Ecological site: Loamy (R042XC007NM)
Hydric soil rating: No

Reagan
Percent of map unit: 1 percent
Ecological site: Loamy (R042XC007NM)
Hydric soil rating: No

Data Source Information

Soil Survey Area: Eddy Area, New Mexico
Survey Area Data: Version 15, Sep 15, 2019

ATTACHMENT 4

Daily Site Visit Report

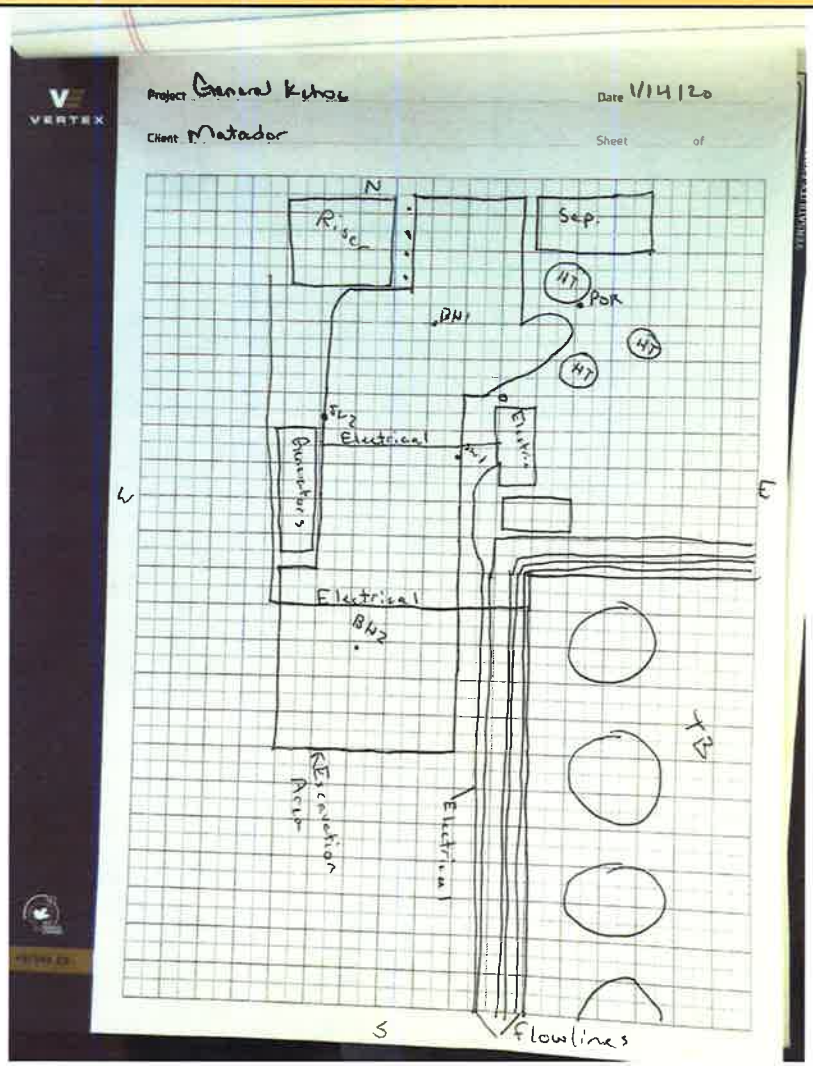
Client:	Matador Resources	Inspection Date:	1/14/2020
Site Location Name:	General Kehoe Tank Battery	Report Run Date:	1/15/2020 12:02 AM
Project Owner:		File (Project) #:	
Project Manager:		API #:	
Client Contact Name:	John Hurt	Reference	
Client Contact Phone #:			

Summary of Times

Left Office	1/14/2020 7:00 AM
Arrived at Site	1/14/2020 7:45 AM
Departed Site	1/14/2020 4:29 PM
Returned to Office	

Daily Site Visit Report

Site Sketch



Daily Site Visit Report

VERTEX

Summary of Daily Operations

16:26 Excavation

Next Steps & Recommendations

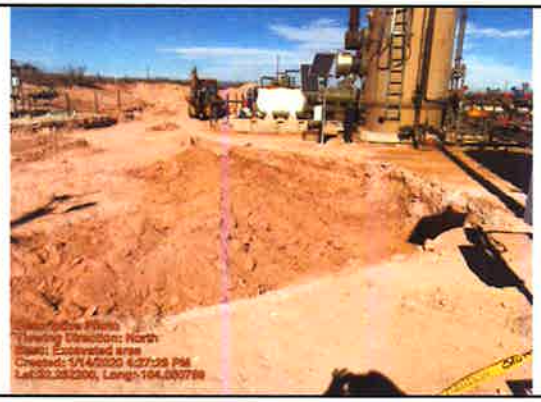
1

Daily Site Visit Report

VERTEX

Site Photos

Viewing Direction: North



Excavated area

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Monica Peppin

Signature:

Daily Site Visit Report

Client:	Matador Resources	Inspection Date:	1/17/2020
Site Location Name:	General Kehoe Tank Battery	Report Run Date:	1/18/2020 12:01 AM
Project Owner:		File (Project) #:	
Project Manager:		API #:	
Client Contact Name:	John Hurt	Reference	
Client Contact Phone #:			

Summary of Times

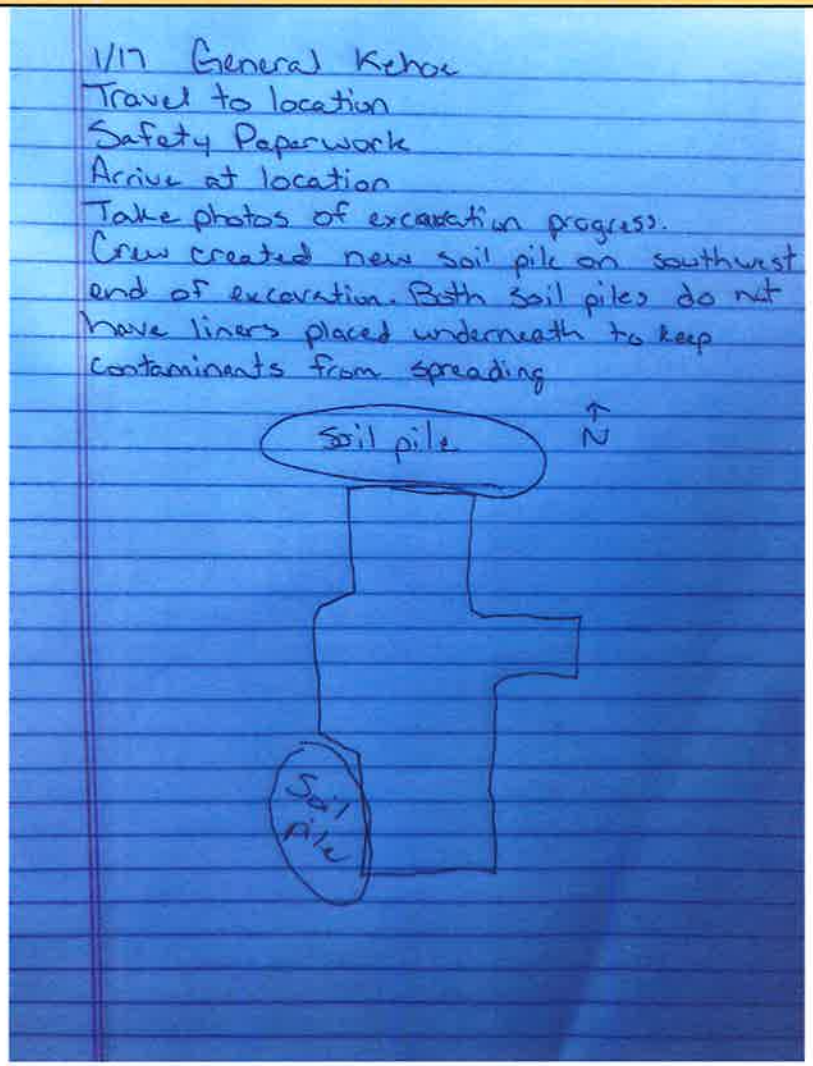
Left Office	1/17/2020 3:00 PM
Arrived at Site	1/17/2020 3:35 PM
Departed Site	1/17/2020 3:48 PM
Returned to Office	

Daily Site Visit Report

VERTEX

Site Sketch

1/17 General Ktbox
Travel to location
Safety Paperwork
Arrive at location
Take photos of excavation progress.
Crew created new soil pile on southwest end of excavation. Both soil piles do not have liners placed underneath to keep contaminants from spreading



Daily Site Visit Report

Summary of Daily Operations

15:37 Travel to location
Take photos of progress on excavation

Next Steps & Recommendations

1 Report findings

2 Travel back to office

3 Scan and file paperwork

Daily Site Visit Report

VERTEX

Site Photos

Viewing Direction: North

Excavation on south end and contamination pile is located

Viewing Direction: East

Contaminated pile on north end of excavation

Viewing Direction: South

Excavation area

Viewing Direction: West

Contamination pile

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Monica Peppin

Signature:

Daily Site Visit Report

Client:	Matador Resources	Inspection Date:	1/20/2020
Site Location Name:	General Kehoe Tank Battery	Report Run Date:	1/21/2020 12:27 AM
Project Owner:		File (Project) #:	
Project Manager:		API #:	
Client Contact Name:	John Hurt	Reference	
Client Contact Phone #:			

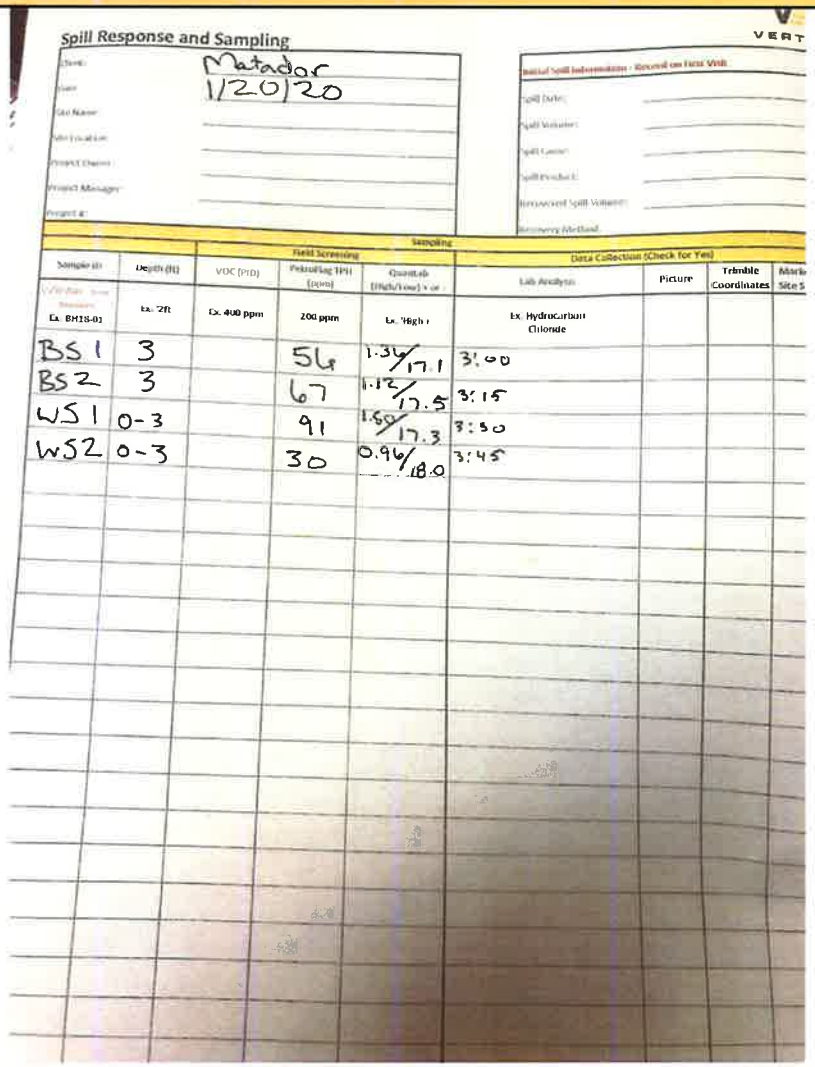
Summary of Times

Left Office	1/20/2020 2:00 PM
Arrived at Site	1/20/2020 2:40 PM
Departed Site	1/20/2020 4:10 PM
Returned to Office	

Daily Site Visit Report

VERTEX

Site Sketch



Spill Response and Sampling

Matador
1/20/20

Sample ID	Depth (ft)	VOC (PID)	Field Screening: Petroflag TPH (ppm)	Field Screening: Quantab (High/Low) + or -	Data Collection (Check for Yes): Lab Analysis	Picture	Trimble Coordinates	Marie Site S
Ex. BH18-01	Ex. 2ft	Ex. 400 ppm	200 ppm	Ex. High	Ex. Hydrocarbon Chloride			
BS1	3		56	1.36/17.1	3:00			
BS2	3		67	1.12/17.5	3:15			
WS1	0-3		91	1.50/17.3	3:30			
WS2	0-3		30	0.96/18.0	3:45			

Daily Site Visit Report

VERTEX

Summary of Daily Operations

14:41 Travel to location
Safety paperwork
Collect confirmation samples
Field screen samples
Pack samples
Return to office
Demobilization

Next Steps & Recommendations

1 Report to project manager

2 Closure samples sent to lab

Sampling

ES-Base20-01

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
3 ft.		56 ppm	Low (30-600 ppm)	1.36 ppm	Chloride (EPA 300.0), TPH (TX1005)	✓		Yes

Daily Site Visit Report

VERTEX

Site Photos

Viewing Direction: East

Excavation area

Viewing Direction: South

Excavated area

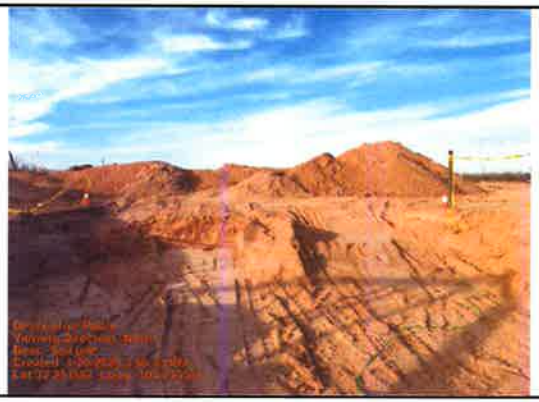
Viewing Direction: North

Excavated area

Viewing Direction: South

Excavation area

Daily Site Visit Report

Viewing Direction: North	**Viewing Direction**: West
	
Soil pile	Second soil pile

Daily Site Visit Report

VERTEX

Depth Sample Photos

Sample Point ID: ES-Base20-01

Depth: 3 ft.

Daily Site Visit Report

Daily Site Visit Signature

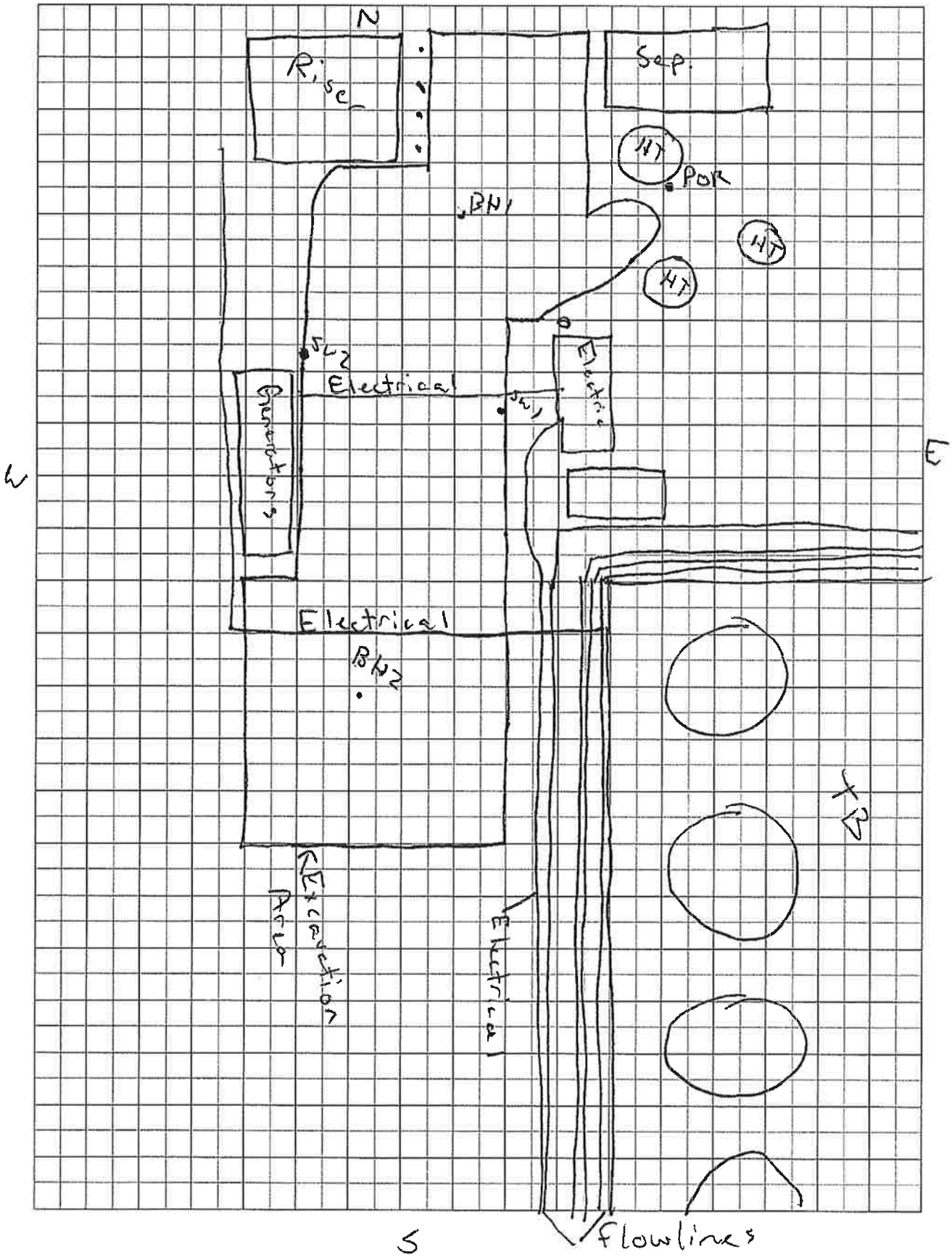
Inspector: Monica Peppin

Signature:

VERTEX

Project General Kehoe Date 1/14/20

Client Matador Sheet of



vertex.ca

ATTACHMENT 5

Natalie Gordon

From: Natalie Gordon
Sent: Thursday, January 9, 2020 5:08 PM
To: Mike Bratcher (mike.bratcher@state.nm.us); Victoria Venegas (Victoria.Venegas@state.nm.us); Robert Hamlet (Robert.Hamlet@state.nm.us); emnrd-ocd-district1spills@state.nm.us
Cc: John Hurt; Dennis Williams (DWilliams@vertex.ca); Dhugal Hanton (DHanton@vertex.ca)
Subject: General Kehoe Tank Battery 48-hr Sampling Notification - Matador Resources

All:

Please accept this email as 48-hr notification that Vertex Resource Services Inc. has scheduled confirmation sampling to be conducted at General Kehoe Tank Battery for an incident that occurred on 11/12/2019. No RP #/Incident # has been assigned at this time.

On January 14, 2020 beginning at 8:00 a.m., Vertex personnel will be onsite to collect confirmation samples for closure of the above referenced incident.

If you need assistance with directions to the site, or have any questions or concerns, please do not hesitate to contact me at 505-506-0040.

Thank you,
Natalie

ATTACHMENT 6

Client Name: Matador Production Company
Site Name: General Kehoe Tank Battery
Project #: 19E-04341-001
Lab Report: 2001882

Table 2. Confirmatory Soil Samples - Depth to Groundwater 51 ≥ 100 feet

Sample Description			Petroleum Hydrocarbons							Inorganic
			Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Benzene (mg/kg)	BTEX (Total) (mg/kg)	Gasoline Range Organics (GRO) (mg/kg)	Diesel Range Organics (DRO) (mg/kg)	Motor Oil Range Organics (MRO) (mg/kg)	(GRO + DRO) (mg/kg)	Total Petroleum Hydrocarbons (TPH) (mg/kg)	Chloride (mg/kg)
BS 20-01	3	January 20, 2020	<0.024	<0.219	<4.9	31	<46	31	31	<60
BS 20-02	3	January 20, 2020	<0.025	<0.221	<4.9	69	<50	69	69	80
WS 20-01	1.5	January 20, 2020	<0.024	<0.220	<4.9	33	<45	33	33	380
WS 20-02	1.5	January 20, 2020	<0.025	<0.222	<4.9	11	<50	11	11	170
BG 1	0	January 14, 2020	-	-	-	-	-	-	-	<60
BG 1	1	January 14, 2020	-	-	-	-	-	-	-	63
BG 1	2	January 14, 2020	-	-	-	-	-	-	-	420
BG 1	3	January 14, 2020	-	-	-	-	-	-	-	480

Bold and shaded indicates exceedance outside of applied action level

ATTACHMENT 7

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

January 29, 2020

Natalie Gordon

Vertex Resource Group Ltd.
213 S. Mesa St
Carlsbad, NM 88220
TEL: (505) 506-0040
FAX

RE: General Kehoe OrderNo.: 2001882

Dear Natalie Gordon:

Hall Environmental Analysis Laboratory received 4 sample(s) on 1/22/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2001882**
Date Reported: **1/29/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resource Group Ltd.
Project: General Kehoe
Lab ID: 2001882-001 **Matrix:** SOIL

Client Sample ID: BS20-01
Collection Date: 1/20/2020 3:00:00 PM
Received Date: 1/22/2020 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	31	9.2		mg/Kg	1	1/23/2020 11:25:36 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/23/2020 11:25:36 AM
Surr: DNOP	107	55.1-146		%Rec	1	1/23/2020 11:25:36 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/24/2020 2:24:01 AM
Surr: BFB	87.7	66.6-105		%Rec	1	1/24/2020 2:24:01 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	1/24/2020 2:24:01 AM
Toluene	ND	0.049		mg/Kg	1	1/24/2020 2:24:01 AM
Ethylbenzene	ND	0.049		mg/Kg	1	1/24/2020 2:24:01 AM
Xylenes, Total	ND	0.097		mg/Kg	1	1/24/2020 2:24:01 AM
Surr: 4-Bromofluorobenzene	94.5	80-120		%Rec	1	1/24/2020 2:24:01 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	ND	60		mg/Kg	20	1/24/2020 12:33:40 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2001882**
Date Reported: **1/29/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resource Group Ltd.
Project: General Kehoe
Lab ID: 2001882-002 **Matrix:** SOIL

Client Sample ID: BS20-02
Collection Date: 1/20/2020 3:15:00 PM
Received Date: 1/22/2020 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	69	10		mg/Kg	1	1/23/2020 11:34:44 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/23/2020 11:34:44 AM
Surr: DNOP	91.3	55.1-146		%Rec	1	1/23/2020 11:34:44 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/24/2020 2:47:18 AM
Surr: BFB	82.2	66.6-105		%Rec	1	1/24/2020 2:47:18 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	1/24/2020 2:47:18 AM
Toluene	ND	0.049		mg/Kg	1	1/24/2020 2:47:18 AM
Ethylbenzene	ND	0.049		mg/Kg	1	1/24/2020 2:47:18 AM
Xylenes, Total	ND	0.098		mg/Kg	1	1/24/2020 2:47:18 AM
Surr: 4-Bromofluorobenzene	93.2	80-120		%Rec	1	1/24/2020 2:47:18 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	80	60		mg/Kg	20	1/24/2020 1:10:43 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2001882**
Date Reported: **1/29/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resource Group Ltd.
Project: General Kehoe
Lab ID: 2001882-003 **Matrix:** SOIL

Client Sample ID: WS20-01
Collection Date: 1/20/2020 3:30:00 PM
Received Date: 1/22/2020 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	33	9.0		mg/Kg	1	1/23/2020 11:43:39 AM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	1/23/2020 11:43:39 AM
Surr: DNOP	100	55.1-146		%Rec	1	1/23/2020 11:43:39 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/24/2020 3:10:35 AM
Surr: BFB	83.1	66.6-105		%Rec	1	1/24/2020 3:10:35 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	1/24/2020 3:10:35 AM
Toluene	ND	0.049		mg/Kg	1	1/24/2020 3:10:35 AM
Ethylbenzene	ND	0.049		mg/Kg	1	1/24/2020 3:10:35 AM
Xylenes, Total	ND	0.098		mg/Kg	1	1/24/2020 3:10:35 AM
Surr: 4-Bromofluorobenzene	94.6	80-120		%Rec	1	1/24/2020 3:10:35 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	380	60		mg/Kg	20	1/24/2020 1:23:04 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2001882**
Date Reported: **1/29/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resource Group Ltd.
Project: General Kehoe
Lab ID: 2001882-004 **Matrix:** SOIL

Client Sample ID: WS20-02
Collection Date: 1/20/2020 3:45:00 PM
Received Date: 1/22/2020 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	11	10		mg/Kg	1	1/23/2020 11:52:33 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/23/2020 11:52:33 AM
Surr: DNOP	91.1	55.1-146		%Rec	1	1/23/2020 11:52:33 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/24/2020 3:33:50 AM
Surr: BFB	81.0	66.6-105		%Rec	1	1/24/2020 3:33:50 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	1/24/2020 3:33:50 AM
Toluene	ND	0.049		mg/Kg	1	1/24/2020 3:33:50 AM
Ethylbenzene	ND	0.049		mg/Kg	1	1/24/2020 3:33:50 AM
Xylenes, Total	ND	0.099		mg/Kg	1	1/24/2020 3:33:50 AM
Surr: 4-Bromofluorobenzene	91.9	80-120		%Rec	1	1/24/2020 3:33:50 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	170	61		mg/Kg	20	1/24/2020 1:35:24 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2001882**

29-Jan-20

Client: Vertex Resource Group Ltd.

Project: General Kehoe

Sample ID: **MB-50025**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **50025**	RunNo: **66053**							
Prep Date: **1/24/2020**	Analysis Date: **1/24/2020**	SeqNo: **2269609**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-50025**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **50025**	RunNo: **66053**							
Prep Date: **1/24/2020**	Analysis Date: **1/24/2020**	SeqNo: **2269611**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.6	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2001882**

29-Jan-20

Client: Vertex Resource Group Ltd.

Project: General Kehoe

Sample ID: **LCS-49989**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **49989**	RunNo: **66004**
Prep Date: **1/23/2020**	Analysis Date: **1/23/2020**	SeqNo: **2266978** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	100	63.9	124			
Surr: DNOP	4.5		5.000		89.5	55.1	146			

Sample ID: **MB-49989**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **49989**	RunNo: **66004**
Prep Date: **1/23/2020**	Analysis Date: **1/23/2020**	SeqNo: **2266979** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.3		10.00		93.0	55.1	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2001882**

29-Jan-20

Client: Vertex Resource Group Ltd.

Project: General Kehoe

Sample ID: **mb-49978**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **49978**	RunNo: **66017**
Prep Date: **1/22/2020**	Analysis Date: **1/23/2020**	SeqNo: **2267664** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	890		1000		88.5	66.6	105			

Sample ID: **lcs-49978**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **49978**	RunNo: **66017**
Prep Date: **1/22/2020**	Analysis Date: **1/23/2020**	SeqNo: **2267665** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	92.7	80	120			
Surr: BFB	990		1000		99.4	66.6	105			

Sample ID: **mb-50005**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **50005**	RunNo: **66055**
Prep Date: **1/23/2020**	Analysis Date: **1/25/2020**	SeqNo: **2268933** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	810		1000		81.2	66.6	105			

Sample ID: **lcs-50005**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **50005**	RunNo: **66055**
Prep Date: **1/23/2020**	Analysis Date: **1/25/2020**	SeqNo: **2268934** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	860		1000		86.2	66.6	105			

Sample ID: **MB-50043**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **50043**	RunNo: **66068**
Prep Date: **1/24/2020**	Analysis Date: **1/27/2020**	SeqNo: **2269049** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	770		1000		77.0	66.6	105			

Sample ID: **LCS-50043**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **50043**	RunNo: **66068**
Prep Date: **1/24/2020**	Analysis Date: **1/27/2020**	SeqNo: **2269050** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	890		1000		89.0	66.6	105			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2001882**

29-Jan-20

Client: Vertex Resource Group Ltd.

Project: General Kehoe

Sample ID: **mb-49978**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **49978**	RunNo: **66017**
Prep Date: **1/22/2020**	Analysis Date: **1/23/2020**	SeqNo: **2267696** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		99.9	80	120			

Sample ID: **LCS-49978**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **49978**	RunNo: **66017**
Prep Date: **1/22/2020**	Analysis Date: **1/23/2020**	SeqNo: **2267697** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	97.8	80	120			
Toluene	0.96	0.050	1.000	0	96.3	80	120			
Ethylbenzene	0.96	0.050	1.000	0	96.3	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.0	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID: **mb-50005**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **50005**	RunNo: **66055**
Prep Date: **1/23/2020**	Analysis Date: **1/25/2020**	SeqNo: **2268950** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.92		1.000		91.8	80	120			

Sample ID: **LCS-50005**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **50005**	RunNo: **66055**
Prep Date: **1/23/2020**	Analysis Date: **1/25/2020**	SeqNo: **2268951** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.91		1.000		90.6	80	120			

Sample ID: **MB-50043**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **50043**	RunNo: **66068**
Prep Date: **1/24/2020**	Analysis Date: **1/27/2020**	SeqNo: **2269077** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.87		1.000		86.6	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2001882**

29-Jan-20

Client: Vertex Resource Group Ltd.

Project: General Kehoe

Sample ID: **LCS-50043**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **50043**	RunNo: **66068**
Prep Date: **1/24/2020**	Analysis Date: **1/27/2020**	SeqNo: **2269078** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.88		1.000		87.7	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **VERTEX CARLSBAD** Work Order Number: **2001882** RcptNo: 1

Received By: **Desiree Dominguez** **1/22/2020 3:30:00 PM** DD

Completed By: **Erin Melendrez** **1/22/2020 4:08:02 PM**

Reviewed By: IO 1/22/20

Chain of Custody

1. Is Chain of Custody sufficiently complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☑
10. Were any sample containers received broken? Yes ☐ No ☑
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
Adjusted? _____
Checked by: DM 1/22/20

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.4	Good				

Chain-of-Custody Record

Client: Vertex

Mailing Address: on file

Phone #: on file

email or Fax#: Natalie Gordon

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time: 5 Day
☑ Standard ☐ Rush

Project Name: General Kehoe

Project #: 19E-04341 001

Project Manager: Natalie Gordon

Sampler: MJP

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 2.4 - 0.0 = 2.4 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No 2001882	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
1/20	3:00	Soil	BS20-01	402	ice	-001	X	X					X			
↓	3:15	↓	BS20-02	↓	↓	-002	↓	↓					↓			
	3:30		WS20-01			-003										
↓	3:45	↓	WS20-02	↓	↓	-004	↓	↓					↓			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
1/21/20	1430				1/21/20	1430
1/21/20	1900			Courier	1122/20	15:30

Remarks:
CC: Natalie Gordon
Matador

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

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January 21, 2020

Natalie Gordon

Vertex Resource Group Ltd.
213 S. Mesa St
Carlsbad, NM 88220
TEL:
FAX

RE: General Kehoe OrderNo.: 2001620

Dear Natalie Gordon:

Hall Environmental Analysis Laboratory received 4 sample(s) on 1/16/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order: **2001620**
Date Reported: **1/21/2020**

CLIENT: Vertex Resource Group Ltd. **Lab Order:** 2001620
Project: General Kehoe

Lab ID: 2001620-001 **Collection Date:** 1/14/2020 12:00:00 PM
Client Sample ID: BG 1-0' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	1/20/2020 5:12:28 PM	49898

Lab ID: 2001620-002 **Collection Date:** 1/14/2020 12:05:00 PM
Client Sample ID: BG 1-1' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	63	60		mg/Kg	20	1/20/2020 6:14:30 PM	49898

Lab ID: 2001620-003 **Collection Date:** 1/14/2020 12:10:00 PM
Client Sample ID: BG 1-2' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	420	61		mg/Kg	20	1/20/2020 6:26:54 PM	49898

Lab ID: 2001620-004 **Collection Date:** 1/14/2020 12:15:00 PM
Client Sample ID: BG 1-3' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	480	60		mg/Kg	20	1/20/2020 9:21:15 PM	49925

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2001620**

21-Jan-20

Client: Vertex Resource Group Ltd.

Project: General Kehoe

Sample ID: **MB-49898** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **49898** RunNo: **65885**
Prep Date: **1/17/2020** Analysis Date: **1/17/2020** SeqNo: **2262633** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-49898** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **49898** RunNo: **65885**
Prep Date: **1/17/2020** Analysis Date: **1/17/2020** SeqNo: **2262634** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.6	90	110			

Sample ID: **MB-49898** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **49898** RunNo: **65902**
Prep Date: **1/17/2020** Analysis Date: **1/20/2020** SeqNo: **2264199** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-49898** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **49898** RunNo: **65902**
Prep Date: **1/17/2020** Analysis Date: **1/20/2020** SeqNo: **2264200** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.7	90	110			

Sample ID: **MB-49925** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **49925** RunNo: **65933**
Prep Date: **1/20/2020** Analysis Date: **1/20/2020** SeqNo: **2264389** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-49925** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **49925** RunNo: **65933**
Prep Date: **1/20/2020** Analysis Date: **1/20/2020** SeqNo: **2264390** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.4	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

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Sample Log-In Check List

Client Name: **VERTEX CARLSBAD** Work Order Number: **2001620** RcptNo: **1**

Received By: **Desiree Dominguez** **1/16/2020 9:10:00 AM**

Completed By: **Yazmine Garduno** **1/16/2020 10:09:11 AM**

Reviewed By: ENM 1/16/20

Chain of Custody

1. Is Chain of Custody sufficiently complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: JR 1/16/20

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.4	Good				

Chain-of-Custody Record

Client: VERTEX

Mailing Address: ONFILE

Phone #:

email or Fax#: Natalie Gordon

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush 5 Day

Project Name: General Kehoe

Project #: 19-04341-001

Project Manager: Natalie Gordon

Sampler: MJP
On Ice: ☑ Yes ☐ No
# of Coolers: 1
Cooler Temp(including CF): 2.4-0.0=2.4 (°C)

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Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No 2001420	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	(Cl, F, Br, NO_3, NO_2, PO_4, SO_4)	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
1/14	12:00	Soil	BG 1-0'	4oz	ice	-001							X			
↓	12:05	↓	BG 1-1'	↓	↓	-002							↓			
	12:10		BG 1-2'			-003										
↓	12:15	↓	BG 1-3'	↓	↓	-004							↓			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
1/15/20	1400				1/15/20	1400
1/15/20	1900			Courier	1/16/20	9:10

Remarks:
CC: Natalie Gordon
Matador

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.